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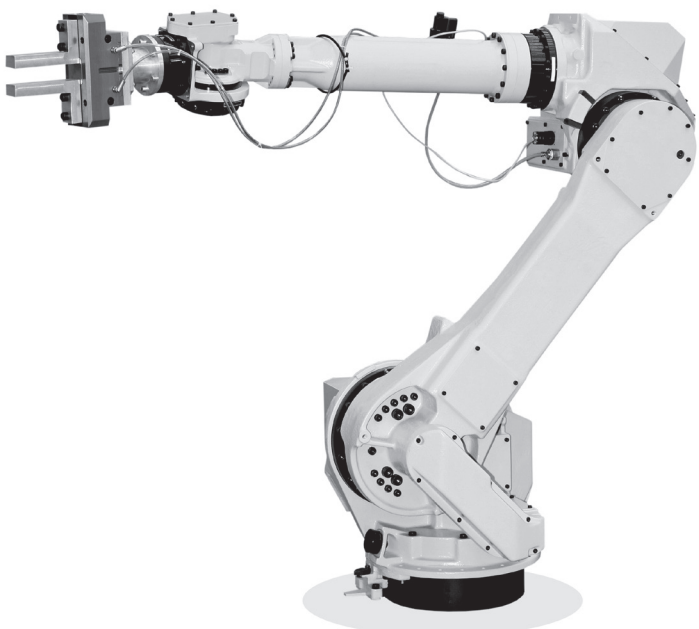


Computer Science & Engineering

CONTENTS

ISBN: 9789332518643

Algorithm Design

Jon Kleinberg

827 | © **2013**

ABOUT THE BOOK

Algorithm Design introduces algorithms by looking at the real-world problems that motivate them. The book teaches students a range of design and analysis techniques for problems that arise in computing applications. The text encourages an understanding of the algorithm design process and an appreciation of the role of algorithms in the broader field of computer science.

FEATURES

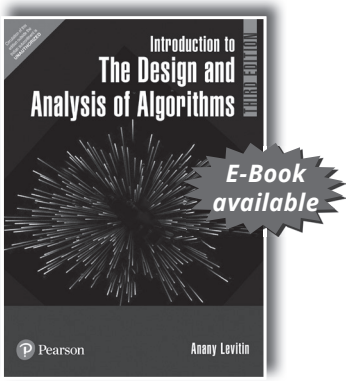
- Focus on problem analysis and design techniques.
- Discussion is grounded in concrete problems and examples rather than abstract presentation of principles, with representative problems woven throughout the text.
- Over 200 well crafted problems from companies such as Yahoo!® and Oracle®. Each problem has been class tested for usefulness and accuracy in the authors' own undergraduate algorithms courses.
- Broad coverage of algorithms for dealing with NP-hard problems and the application of randomization, increasingly important topics in algorithms.

CONTENTS

ABOUT THE AUTHOR(S)

Jon Kleinberg, Cornell University
Éva Tardos, Cornell University

Introduction to the Design and Analysis of Algorithms, 3/e



ISBN: 9789332585485

Anany Levitin

592 | © **2017**

ABOUT THE BOOK

Based on a new classification of algorithm design techniques and a clear delineation of analysis methods, ***Introduction to the Design and Analysis of Algorithms*** presents the subject in a coherent and innovative manner. Written in a student-friendly style, the book emphasizes the understanding of ideas over excessively formal treatment while thoroughly covering the material required in an introductory algorithms course. Popular puzzles are used to motivate students' interest and strengthen their skills in algorithmic problem solving. Other learning-enhancement features include chapter summaries, hints to the exercises, and a detailed solution manual.

FEATURES

- Employs an innovative and more comprehensive taxonomy of algorithm design techniques
- Covers mathematical analysis of both nonrecursive and recursive algorithms, as well as empirical analysis and algorithm visualization
- Discusses limitations of algorithms and ways to overcome them
- Treats algorithms as problem-solving tools and develops algorithmic thinking by using puzzles and games
- Contains over 600 exercises with hints for students and detailed solutions for instructors
- New exercises and engaging puzzles

CONTENTS

ABOUT THE AUTHOR

Anany Levitin, Villanova University

ISBN: 9789361591754

AI for Everyone: A Beginner's Handbook for Artificial Intelligence

Saptarsi Goswami | Amit Kumar Das | Amlan Chakrabarti

192 | © 2024

ABOUT THE BOOK

"AI for Everyone" is a humble attempt made by authors to introduce the basic concepts of artificial intelligence or AI in a simple but comprehensive way. The book starts with a quick anecdote of the evolution of AI, which is followed by presenting the industry use cases across diverse domains. It also discusses the different technology areas under the gamut of AI, the ethical concerns related to AI and how they should be addressed, and research opportunities related to AI. It ends with discussing the emerging trends and future directions in AI. The authors, being veteran professionals in the areas of academics and industry, have tried to bring in comprehensively all the required elements of knowledge – both in the areas of academic and industry practitioner.

FEATURES

- Comprehensive coverage of industry applications of AI
- Sample questions at the end of each chapter helping the students to prepare for the examination
- Lucid writing style facilitating easy grasping of concepts

CONTENTS

ABOUT THE AUTHOR

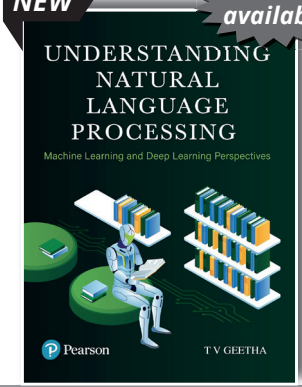
Saptarsi Goswami – Assistant Professor and Head of the Department, Department of Computer Science Bangabasi Morning College affiliated to University of Calcutta.

Amit Kumar Das – Principal Director, LTI Mindtree.

Amlan Chakrabarti – Professor and Director, A.K. Choudhury School of Information Technology, University of Calcutta

NEW

E-Book available



ISBN: 9788119896004

Understanding Natural Language Processing

T V Geetha

396 | © **2024**

ABOUT THE BOOK

Understanding Natural Language Processing strives to elucidate the fundamental principles of natural language processing (NLP) from various angles, encompassing conceptual, mathematical, and algorithmic perspectives, along with practical insights into tools and software usage. The primary emphasis, however, is directed towards prompting readers to contemplate applications in the realm of natural language processing, enabling them to seamlessly integrate NLP components into real-time applications. The concepts are explored through the lens of machine learning and deep learning methodologies, accompanied by relevant use cases threaded throughout the chapters.

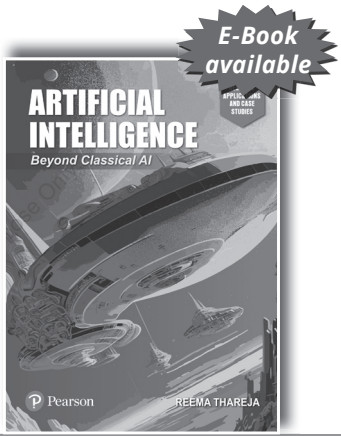
FEATURES

- Discusses comparison of language models, basic vector models and neural language models
- Introduces basic concepts of word, morphology and semantics
- Explains word embedding and deep learning models including pre-trained models
- Emphasizes on machine learning and deep learning approaches to NLP tasks – part-of speech tagging, syntactic processing, semantic processing and discourse and dialog systems including the latest ChatGPT architecture
- Illustrates NLP from an application perspective – machine learning and deep learning approaches to text categorization, machine translation, information extraction, question answering and summarization
- Covers ethics of NLP including bias and fairness
- Rich pedagogy – objective-type questions, activities, case-studies and project-based learning exercises.

CONTENTS

ABOUT THE AUTHOR

T V Geetha, is a retired senior professor of Computer Science and Engineering with over 40 years of teaching experience in the areas of artificial intelligence, natural language processing, machine learning, deep learning and information retrieval. She has been instrumental in the formulation and updating of NLP syllabus in many universities. In addition, the Department of Information technology, Government of India requested her group to offer a specialized programme - M.E. CSE (with Specialization in Knowledge Engineering and Computational Linguistics (NLP)). The highlights included the framing of regulations. Syllabus and curriculum with state-of–the-art topics in Knowledge Engineering and NLP including Statistical NLP, Indian Language Processing, Applications of NLP, etc. Her research interests include semantic, personalized and deep web search, semi-supervised learning for Indian language processing, application of Indian philosophy to knowledge representation and reasoning, machine learning for adaptive learning and application of machine learning and deep learning to biological literature mining and drug discovery. Her focused research in NLP included morphological processing, named entity recognition, relation extraction, summarization, semantic processing, lyric mining, natural language-based search which resulted in an innovative semi-supervised methodology for NLP specially for Indian language processing. She has co-authored a book titled "Machine Learning- Concepts, Techniques and Applications". She is a recipient of the Young Women Scientist Award from the government of Tamilnadu and Women of Excellence Award from the Rotaract Club of Chennai. For her pioneering work in NLP she was awarded the BSR Faculty Fellowship for Superannuated Faculty from the University Grants Commission, Government of India for 2020–2023. Currently she is the Distinguished Research Professor, at Sri Sivasubramanian Nadar College, Chennai and Curriculum Advisor at Rajalakshmi Engineering College, Chennai.



ISBN: 9789356069329

Artificial Intelligence

Reema Thareja

632 | © **2023**

ABOUT THE BOOK

Pearson's Artificial Intelligence encompasses a comprehensive text on the fundamental principles and concepts of Artificial Intelligence—a new-age technology that fuels the much-coveted 'Industry 4.0'. Presented in lucid English, this book covers all the basic concepts, enriched with latest examples. It also discusses all the major components of AI, such as Neural Networks, Natural Language Processing, Reinforcement Learning, Machine Learning, Deep Learning and Computer Vision. The book is a deliberation of classical as well modern AI techniques and related technologies that provides readers with an overall knowledge and understanding of AI in present-day context.

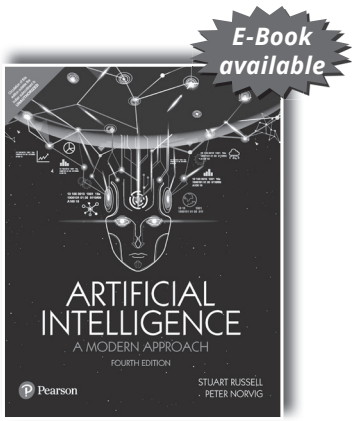
FEATURES

- Focusses on practical implementation of key algorithms using Python programming language that help students gain hands-on experience
- Discusses real-world case studies to illustrate pragmatic applications
- Supplements theoretical concepts with projects and interview questions
- Includes exhaustive coverage on Prolog programming language
- Provides extensive chapter-end exercises for practice

CONTENTS

ABOUT THE AUTHOR

Reema Thareja is Assistant Professor with the Department of Computer Science at Shyama Prasad Mukherji College, University of Delhi



ISBN: 9789356063570

Artificial Intelligence, 4/e

Stuart Russell | Peter Norvig

1292 | © 2022

ABOUT THE BOOK

The long-anticipated revision of Artificial Intelligence: A Modern Approach explores the full breadth and depth of the field of artificial intelligence (AI). The 4th Edition brings readers up to date on the latest technologies, presents concepts in a more unified manner, and offers new or expanded coverage of machine learning, deep learning, transfer learning, multiagent systems, robotics, natural language processing, causality, probabilistic programming, privacy, fairness, and safe AI.

FEATURES

- Nontechnical learning material introduces major concepts using intuitive explanations, before going into mathematical or algorithmic details.
- A unified approach to AI shows students how the various subfields of AI fit together to build actual, useful programs.
- In-depth coverage of both basic and advanced topics provides students with a basic understanding of the frontiers of AI without compromising complexity and depth.
- NEW - New chapters feature expanded coverage of probabilistic programming; multiagent decision making; deep learning; and deep learning for natural language processing.

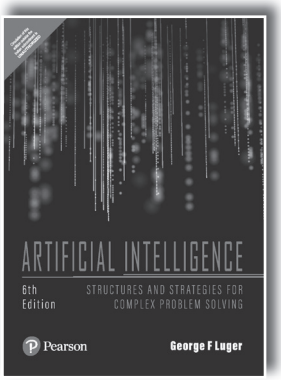
CONTENTS

ABOUT THE AUTHOR(S)

Stuart Russell has received his B.A. with firstclass honours in physics from Oxford University in 1982, and his Ph.D. in computer science from Stanford in 1986. He then joined the faculty of the University of California at Berkeley, where he is a professor and former chair of computer science, director of the Center for Human-Compatible AI, and holder of the Smith–Zadeh Chair in Engineering. In 1990, he received the Presidential Young Investigator Award of the National Science Foundation, and in 1995 he was cowinner of the Computers and Thought Award.

Peter Norvig is currently a Director of Research at Google, Inc., and was previously the director responsible for the core Web search algorithms. He co-taught an online AI class that signed up 160,000 students, helping to kick off the current round of massive open online classes. He received a B.S. in applied mathematics from Brown University and a Ph.D. in computer science from Berkeley. He has been a professor at the University of Southern California and a faculty member at Berkeley and Stanford.

The two authors shared the inaugural AAAI/EAAI Outstanding Educator award in 2016.



ISBN: 9789354493782

Artificial Intelligence: Structures and Strategies for Complex Problem Solving, 6/e

George F Luger

780 | © 2021

ABOUT THE BOOK

Ideal for an undergraduate course in Artificial Intelligence, the sixth edition presents the fundamental concepts of the discipline first and then goes into detail with the practical information necessary to implement the algorithms and strategies discussed. It includes perception and adaptation using neural networks and genetic algorithms, intelligent agents with ontologies, automated reasoning, natural language analysis, and stochastic approaches to machine learning.

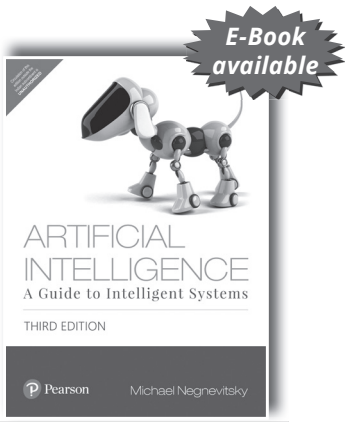
FEATURES

- NEW! Chapter 13, Probabilistically-Based Machine Learning covers stochastic methods that support machine learning.
- NEW! Natural language processing with dynamic programming (the Earley parser) and other probabilistic parsing techniques including Viterbi, are added to Chapter 15, Understanding Natural Language.
- NEW! Presentation of agent technology and the use of ontologies are added to Chapter 7, Knowledge Presentation.
- Expanded stochastic approaches to reasoning in uncertain situations, including Bayesian belief networks and Markov models, are discussed in Chapter 9.

CONTENTS

ABOUT THE AUTHOR

George F Luger, University of New Mexico.



ISBN: 9789353946791

Artificial Intelligence: A Guide to Intelligent Systems, 3/e

Michael Negnevitsky

500 | © **2020**

Web Supplements

ABOUT THE BOOK

Negnevitsky shows students how to build intelligent systems drawing on techniques from knowledge-based systems, neural networks, fuzzy systems, evolutionary computation and now also intelligent agents. The principles behind these techniques are explained without resorting to complex mathematics, showing how the various techniques are implemented, when they are useful and when they are not. No particular programming language is assumed and the book does not tie itself to any of the software tools available. However, available tools and their uses are described, and program examples are given in Java. Includes the latest state-of-the-art techniques, particularly in intelligent agents and knowledge discovery.

FEATURES

- No mathematical or programming prerequisites.
- Linked coverage of all the latest artificial intelligence topics.
- Question and answer format.
- Accompanying website including student projects, accompanying software tools, software demonstrations, PowerPoint slides and solutions to exercises.

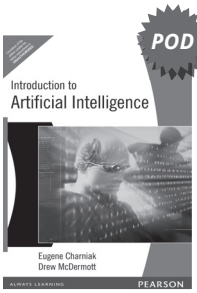
CONTENTS

1. Introduction to knowledge-based intelligent systems
2. Rule-based expert systems
3. Uncertainty management in rule-based expert systems
4. Fuzzy expert systems
5. Frame-based expert systems
6. Artificial neural networks
7. Evolutionary computation
8. Hybrid intelligent systems
9. Knowledge engineering
10. Data mining and knowledge discovery

ABOUT THE AUTHOR

Dr Michael Negnevitsky is a Professor in Electrical Engineering and Computer Science at the University of Tasmania, Australia. The book has developed from his lectures to undergraduates. Educated as an electrical engineer, Dr Negnevitsky?s many interests include artificial intelligence and soft computing. His research involves the development and application of intelligent systems in electrical engineering, process control and environmental engineering. He has authored and co-authored over 300 research publications including numerous journal articles, four patents for inventions and two books.

➦ ALSO AVAILABLE...

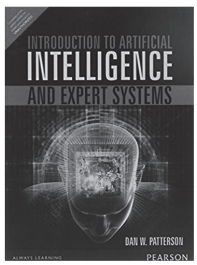


POD

Introduction to Artificial Intelligence

Charniak / McDermott

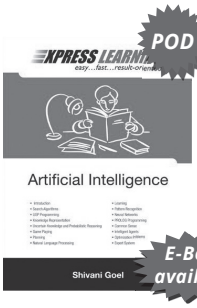
ISBN: 9788131703069
Pages: 720



Introduction to Artificial Intelligence and Expert Systems

Dan W. Patterson

ISBN: 9789332551947
Pages: 464



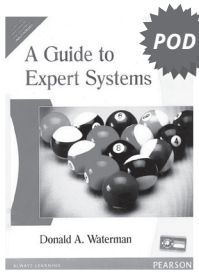
POD

E-Book available

Express learning – Artificial Intelligence

Shivani Goel

ISBN: 9788131787472
Pages: 296

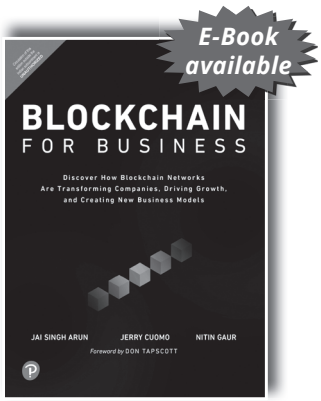


POD

A Guide to Expert Systems

Donald A. Waterman

ISBN: 9788131713310
Pages: TBA



ISBN: 9789389588880

Blockchain for Business

Jai Singh Arun | Jerry Cuomo | Nitin Gaur

228 | © **2020**

ABOUT THE BOOK

Blockchain technologies are transformational: they can enable enterprises to reinvent processes and business models, and pursue radically disruptive use cases. Many decision-makers and IT professionals don't understand blockchain others confuse it with cryptocurrencies like bitcoin. This concise, accessible handbook brings clarity and pragmatism to blockchain technologies and opportunities. Written from a business perspective by three of IBM's leading consultants, it presents real-world examples that demonstrate what blockchain can and can't do. Drawing on their unsurpassed experience, the authors survey the technology's current state, introduce industry-specific and cross-industry use cases, review approaches to implementation and governance, and preview emerging capabilities all with a relentless focus on real business outcomes, and no hype.

FEATURES

- A team of IBM's leading blockchain consultants focus on real business outcomes and transformations
- Understand blockchain technology, ecosystems, business models, implementation strategies, governance, and emerging capabilities
- Explore a wide spectrum of industry-specific and cross-industry use cases

CONTENTS

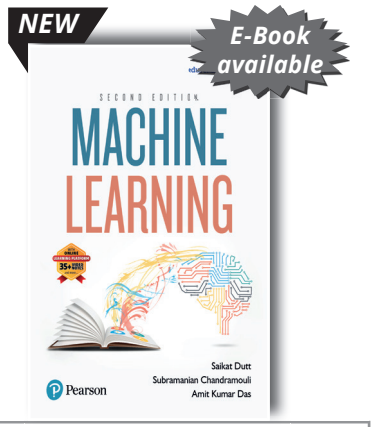
1. Introduction to Blockchain
2. Opportunities and Challenges
3. Understanding the Technology Landscape
4. Business of Business Models
5. Developing a Governance Structure for Blockchain Networks
6. Building a Team to Drive Blockchain Projects
7. Understanding Financial Models, Investment Rubrics, and Model Risk Frameworks
8. Looking Ahead: What Does the Future Hold?

ABOUT THE AUTHOR(S)

Jai Singh Arun is a senior program director at IBM corporate strategy team and drives strategic product management and business development of IBM Research innovations within Blockchain, Artificial Intelligence, and Cybersecurity areas. He has over two decades of global, cross-functional business and emerging technologies leadership experience, building multi-million dollar software, systems, and services businesses.

Jerry Cuomo leads IBM's engineering and product initiatives on Blockchain. He holds the prestigious title of IBM Fellow and is recognized as one of the most prolific contributors to IBM's software business, producing products and technologies that have profoundly impacted how the industry conducts commerce over the World Wide Web.

Nitin Gaur is an IBM distinguished engineer and worldwide director and he leads IBM's global blockchain labs and services. He is responsible for strategy and developing offerings of IBM's digital currency technologies, such as stable coins and digital fiat. He pioneered IBM's enterprise blockchain strategy and advised IBM decision makers, business partners, and clients on the use of the technology.



ISBN: 9788119896738

Machine Learning, 2/e

Saikat Dutt | Subramanian Chandramouli | Amit Kumar Das

556 | © 2024

ABOUT THE BOOK

Machine Learning introduces readers to the area of machine learning in an extremely easy to read and understand manner. Through numerous worked-out problems, diagrams and notes, the text makes this challenging subject easy to assimilate. The text starts with a simple introduction to the concepts of machine learning and expands it by delving into the details of different learning algorithms by using sample caselets. The authors, by virtue of their long exposure to industry implementations, have designed the topics so that readers will earn industry-readiness by just reading this text.

FEATURES

- Generative AI and Large Language Models with emphasis on Prompt Engineering
- Reinforcement learning
- End-end Machine Learning Implementation

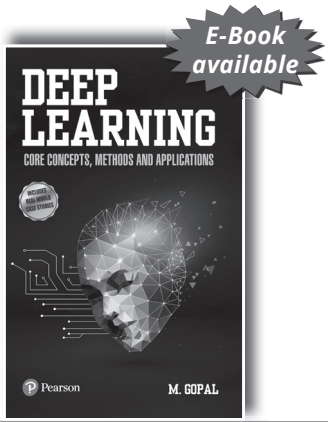
CONTENTS

ABOUT THE AUTHOR

Saikat Dutt – Visiting Faculty, Indian Institute of Management Calcutta, Former Senior Director, Cognizant Technology Solutions

Subramanian Chandramouli – Associate Director, Cognizant Technology Solutions

Amit Kumar Das – Principal Director, LTI Mindtree Former Faculty Member, Institute of Engineering & Management, Kolkata



ISBN: 9789356061972

Deep Learning

M Gopal

316 | © **2022**

ABOUT THE BOOK

Pearson presents Deep Learning: Core Concepts, Methods and Applications by globally renowned author and academician, M Gopal. This book explores the theoretical underpinnings of Deep Learning and equips its readers with the knowledge needed to apply powerful deep learning techniques to solve challenging real-world problems. Presented in a non-rigorous mathematical style, the text offers sufficient technical depth to provide working foundation for the subject. The emphasis is on getting the solid grip on core principles and methods. The book shows step-by-step method to conceptualize problems, accurately represent data, select and tune algorithms, interpret and analyse results, and make informed strategic decisions. It also provides platform for hands-on experience through case studies.

FEATURES

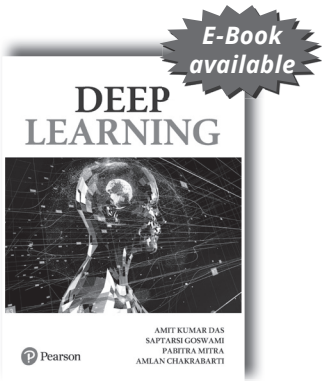
- Provides readers with the knowledge of building blocks used in deep learning-based solutions
- Equips learners with the basic domain expertise in applications in image processing, audio signal processing and natural language processing
- Develops learners' skills to practice software implementation of various algorithms covered in the text
- The reader of this book need not be a professional programmer; only a basic knowledge of Python programming is required for beginners.

CONTENTS

ABOUT THE AUTHOR

M. Gopal, an Ex-Professor of IIT Delhi, is globally known academician with excellent credentials as author, teacher, and researcher. As a teacher, his potential is being used globally through a video course (http://www. youtube.com/iit); one of the most popular NPTEL courses by the IIT faculty. More than a million students, teachers, researchers, and practitioners have used his books and the video course for knowledge acquisition over the past more than four decades.

Deep Learning



Amit Kumar Das | Saptarsi Goswami | Pabitra Mitra | Amlan Chakrabarti

548 | © **2021**

ISBN: 9789354493874

ABOUT THE BOOK

This book is intended to help readers understand the concepts first and then move-on to hone their programming skills to become deep learning practitioners in the true sense. It covers the basic concepts in deep learning, deep learning architectures, including recurrent neural networks as well as such recent developments as Generative Adversarial Networks. Fundamentals of Neural Networks as well as Training Deep Neural Networks is also included.

The book is a must-have for students who are looking for a complete reference text on deep learning as well as industry practitioners from diverse fields who want to start their journey in the field of data science.

FEATURES

- Emphasis on Fundamentals of Deep Learning
- Detailed programming concepts with two most popular deep learning frameworks Tensorflow-Keras and PyTorch
- Case Studies presenting a true perspective of how deep learning is used to solve real-life problems included
- Appendix on Programming Recurrent Neural Networks included
- Model Syllabus, Model Lesson Plan and Model Question papers added

CONTENTS

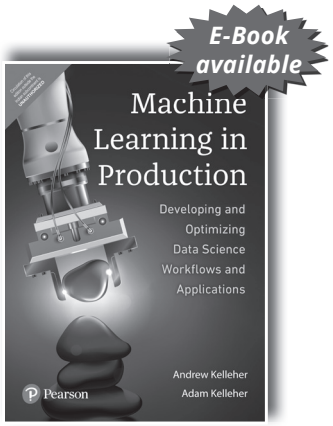
ABOUT THE AUTHOR

Amit Kumar Das, Assistant Professor, Institute of Engineering & Management, Senior Research Scientist, Data Science Lab, A.K. Choudhury School of Information Technology, University of Calcutta, Ex-Director, Cognizant Technology Solutions

Saptarsi Goswami, Assistant Professor, Computer Science, Bangabasi Morning College (affiliated to University of Calcutta)

Pabitra Mitra, Professor, Department of Computer Science & Engineering, Indian Institute of Technology, Kharagpur

Amlan Chakrabarti, Professor & Director, A.K. Choudhury School of Information Technology, University of Calcutta



ISBN: 9789389588507

Machine Learning in Production

Andrew Kelleher | Adam Kelleher

256 | © **2020**

ABOUT THE BOOK

Machine Learning in Production is a crash course in data science and machine learning for learners who need to solve real-world problems in production environments. Written for technically competent "accidental data scientists" with more curiosity and ambition than formal training, this complete and rigorous introduction stresses practice, not theory.

FEATURES

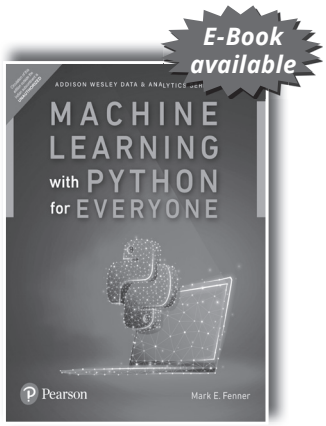
- Leverage agile principles to maximize development efficiency in production projects
- Learn from practical Python code examples and visualizations that bring essential algorithmic concepts to life
- Start with simple heuristics and improve them as your data pipeline matures
- Communicate your results with basic data visualization techniques
- Master basic machine learning techniques, starting with linear regression and random forests
- Perform classification and clustering on both vector and graph data
- Learn the basics of graphical models and Bayesian inference
- Understand correlation and causation in machine learning models
- Explore over_tting, model capacity, and other advanced machine learning techniques
- Make informed architectural decisions about storage, data transfer, computation, and communication

CONTENTS

ABOUT THE AUTHOR(S)

Andrew Kelleher is a sta software engineer and distributed systems architect at Venmo. He was previously a sta software engineer at BuzzFeed and has worked on data pipelines and algorithm implementations for modern optimization. He graduated with a BS in physics from Clemson University. He runs a meetup in New York City that studies the fundamentals behind distributed systems in the context of production applications, and was ranked one of Fast Company's most creative people two years in a row.

Adam Kelleher wrote this book while working as principal data scientist at BuzzFeed and adjunct professor at Columbia University in the City of New York. As of May 2018, he is chief data scientist for research at Barclays and teaches causal inference and machine learning products at Columbia.



ISBN: 9789353944902

Machine Learning with Python for Everyone

Mark Fenner

504 | © **2020**

ABOUT THE BOOK

Students are rushing to master powerful machine learning techniques for improving decision-making and scaling analysis to immense datasets. Machine Learning with Python for Everyone brings together all they'll need to succeed: a practical understanding of the machine learning process, accessible code, skills for implementing that process with Python and the scikit-learn library, and real expertise in using learning systems intelligently.

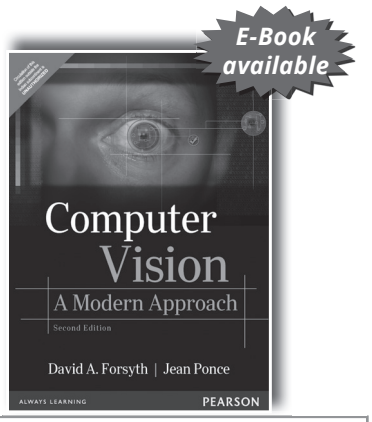
FEATURES

- Covers whatever learners need to succeed in data science with Python: process, code, and implementation
- Enables learners to understand the machine learning process, leverage the powerful Python scikit-learn library, and master the algorithmic components of learning systems
- Integrates clear narrative, carefully designed Python code, images, and interesting, intelligible datasets

CONTENTS

ABOUT THE AUTHOR

Dr. Mark Fenner, owner of Fenner Training and Consulting, LLC, has taught computing and mathematics to diverse adult audiences since 1999, and holds a PhD in computer science. His research has included design, implementation, and performance of machine learning and numerical algorithms; developing learning systems to detect user anomalies; and probabilistic modeling of protein function.



ISBN: 9789332550117

Computer Vision: A Modern Approach, 2/e

David A. Forsyth | Jean Ponce

792 | © 2015

ABOUT THE BOOK

This textbook provides the most complete treatment of modern computer vision methods by two of the leading authorities in the field. This accessible presentation gives both a general view of the entire computer vision enterprise and also offers sufficient detail for students to be able to build useful applications. Students will learn techniques that have proven to be useful by first-hand experience and a wide range of mathematical methods.

FEATURES

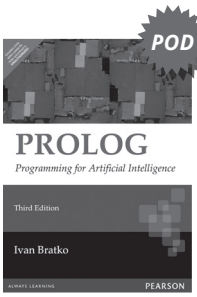
- Broad coverage–Coverage of a wide range of topics allows customization to fit instructor, student, and course needs.
- Most comprehensive and up-to-date text on computer vision–Includes essential topics that either reflect practical significance or are of theoretical importance.
- Depth of the material accessible to various levels of students–Topics are discussed in substantial and increasing depth.
- Application surveys–Describe numerous important application areas such as image based rendering and digital libraries.
- Many important algorithms broken down and illustrated in pseudo code.
- Excellent pedagogy throughout the text–Includes numerous worked examples, exercises, programming assignments, and extensive illustrations.

CONTENTS

ABOUT THE AUTHOR(S)

David A. Forsyth, University of Illinois at Urbana-Champaign
Jean Ponce, Ecole Normale Superieure, Paris

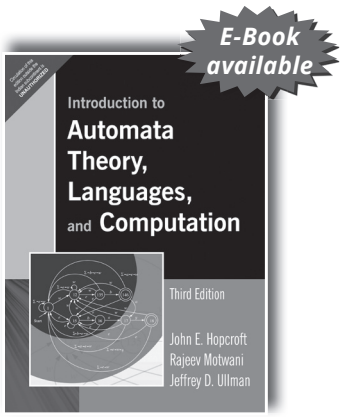
PROGRAMMING FOR ARTIFICIAL INTELLIGENCE (AI)



Prolog: Programming for Artificial Intelligence, 3/e

Ivan Bratko

ISBN: 9788131711347
Pages: 704



ISBN: 9788131720479

Introduction to Automata Theory, Languages, and Computation, 3/e

John E. Hopcroft | Rajeev Motwani | Jeffrey D. Ullman

554 | © 2008

Web Supplements

ABOUT THE BOOK

This classic book on formal languages, automata theory, and computational complexity has been updated to present theoretical concepts in a concise and straightforward manner with the increase of hands-on, practical applications. This new edition comes with Gradiance, an online assessment tool developed for computer science. Gradiance is the most advanced online assessment tool developed for the computer science discipline. With its innovative underlying technology, Gradiance turns basic homework assignments and programming labs into an interactive learning experience for students. By using a series of "root questions" and hints, it not only tests a student's capability, but actually simulates a one-on-one teacher-student tutorial that allows for the student to more easily learn the material. Through the programming labs, instructors are capable of testing, tracking, and honing their students' skills, both in terms of syntax and semantics, with an unprecedented level of assessment never before offered.

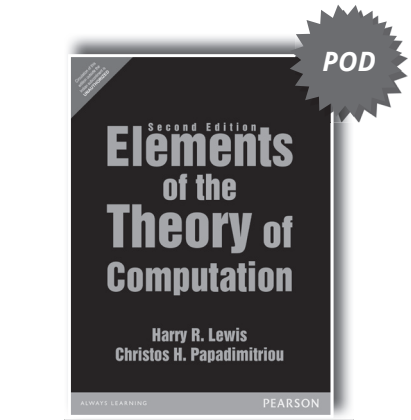
FEATURES

- Presents theoretical concepts in a concise and accessible style.
- Emphasizes modern applications of the theory
- Uses numerous figures to help convey ideas
- Provides more detail and intuition for definitions and proofs
- Challenges readers with extensive exercises at various levels of difficulty at the end of each chapter
- Includes additional practice and tests comprehension of important concepts withGradiance an online homework and tutorial system

CONTENTS

ABOUT THE AUTHOR(S)

John E. Hopcroft, Cornell University
Rajeev Motwani, Stanford University
Jeffrey D. Ullman, Stanford University



ISBN: 9789332549890

Elements of the Theory of Computation, 2/e

Harry R. Lewis | Christos H. Papadimitriou

480 | © 2015

ABOUT THE BOOK

Appropriate for senior and graduate level courses in Computer Science Theory, Automata, and Theory of Computation.

This is the long awaited Second Edition of Lewis and Papadimitriou's best-selling theory of computation text. In this substantially modified edition, the authors have enhanced the clarity of their presentation by making the material more accessible to a broader undergraduate audience with no special mathematical experience.

FEATURES

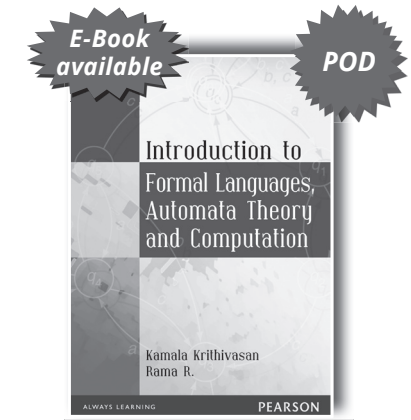
- Offers a mathematically sound introduction to the classical and contemporary theory of computation, and provide deep insights into the fundamental paradigms of computer science.
- Would you like a theory of computation text that provides a solid, specialized introduction to algorithms?
- Informally introduces algorithms, complexity analysis, and algorithmic ideas in Ch. 1 (in connection to transitive and other closures), and explores them throughout the book.
- Introduces asymptotic analysis and O- notation.
- Features a more "student-friendly" approach.
- Truncates long proofs and presents them as exercises.
- Provides problems after each section to check student comprehension.
- Considers automata in the context of their applications.
- Includes extensive discussion of state minimization, the Myhill-Nerode Theorem, string matching, and parsing.
- Complexity starts with a proof that P = EXP.
- Many combinatorial problems are introduced and analyzed (including variants of satisfiability), and their apparent complexity contrasted.
- Would you like to teach NP–completeness, as well as ways of coping with it, in your course?
- Features a separate chapter on NP-completeness.
- Extensive section on coping with NP-completeness that covers special cases, approximation algorithms, backtracking, and local search heuristics.
- Covers NP-completeness including state minimization problem of nondeterministic finite automata.
- Logic coverage has been limited to propositional logic in relation to NP-completeness.
- Considers Cook's Theorem again via the tiling problem.
- Discusses approximation and its complexity.
- Introduces the Turing machine notation more informally.
- Uses the terms recursive and recursively innumerably.
- Quantitatively analyzes simulations between machine models.
- Introduces and analyzes a model of random access Turing machines, similar to RAMs.
- Offers a more succinct treatment of general grammars and recursive functions.
- Uses random access Turing machines to bridge the "credibility gap" between Turing machine model and the empirical concept of an algorithm.
- Includes some recursion theory (up to Rice's theorem).
- Provides an informal, concise development of A-recursive functions.
- Explores Chomsky normal form and the resulting dynamic programming algorithm.

CONTENTS

ABOUT THE AUTHOR(S)

Harry Lewis

Christos H. Papadimitriou, University of California-Berkeley



ISBN: 9788131723562

Introduction to Formal Languages, Automata Theory and Computation

Kamala Krithivasan | Rama R.

436 | © 2009

Web Supplements

ABOUT THE BOOK

Introduction to Formal Languages, Automata Theory and Computation presents the theoretical concepts in a concise and clear manner, with an in-depth coverage of formal grammar and basic automata types. The book also examines the underlying theory and principles of computation and is highly suitable to the undergraduate courses in computer science and information technology. An overview of the recent trends in the field and applications are introduced at the appropriate places to stimulate the interest of active learners

FEATURES

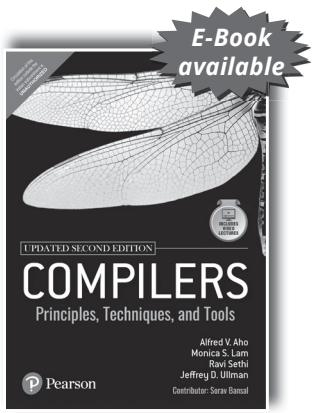
- Numerous worked-out examples and problems to facilitate easier recapitulation of the concepts learnt
- Exhaustive coverage of computability and decidability through Turing machines
- Advanced topics on formal languages and new models of computation for the benefit of the students contemplating an in-depth research
- Multiple-choice questions designed in a way to help students understand the basics.

CONTENTS

ABOUT THE AUTHOR(S)

Kamala Krithivasan received her Ph.D. from the University of Madras,and she joined the Indian Institute of Technology Madras (IITM) in 1975. With more than 30 years of teaching and research experience at IITM, she is currently Professor at the Department of Computer Science and Engineering,in which she served as Chairperson during 1992–1995. Her research interests include formal language theory and unconventional models of computing like DNA computing, membrane computing and discrete tomography.

Rama R. was awarded a doctoral degree by Anna University in 1989. She taught in the College of Engineering, Anna University, before joining the Department of Mathematics, Indian Institute of Technology Madras (IITM), as Assistant Professor in 1996. She was subsequently elevated as Professor in 2006 and has been in that position ever since. Professor Rama has 20 years of teaching and research experience, and has guided four research students in their PhD theses.



ISBN: 9789357054119

Compilers, Updated 2/e

Alfred V. Aho | Monica S. Lam | Ravi Sethi | Jeffrey Ullman

992 | © 2023

ABOUT THE BOOK

Pearson's flagship title ***Compilers: Principles, Techniques and Tools***, known to professors, students, and developers worldwide as the "Dragon Book," is available in a new edition to reflect the current state of compilation. This book provides the foundation for understanding the theory and practice of compilers. Revised and updated with new chapters on Programming Language Semantics and Undefined Behaviour Semantics, the title addresses modern issues in compiler design. However, the authors, recognizing that few readers will ever go on to construct a compiler, retain their focus on the broader set of problems faced in software design and software development.

FEATURES

- Covers important topics such-as context-free grammars, fine state machines, and syntax-directed translation
- Presents the five methods for translation to explain syntax-directed translation
- Illustrates new techniques for data-flow analysis that emphasize the unity of code optimization and other program analysis software
- Uses code optimization to work with parallel machines
- Explains just-in-time compiling with programming languages such as Java
- Includes online video lectures to enhance learning experience

CONTENTS

ABOUT THE AUTHOR(S)

Alfred V. Aho is Lawrence Gussman Professor of Computer Science at Columbia University. Professor Aho has won several awards including the Great Teacher Award for 2003 from the Society of Columbia Graduates and the IEEE John von Neumann Medal. He is a member of the National Academy of Engineering and a fellow of the ACM and IEEE.

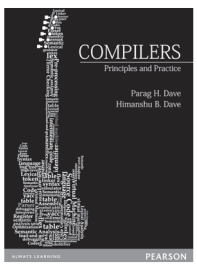
Monica S. Lam is a Professor of Computer Science at Stanford University, was the Chief Scientist at Tensilica and the founding CEO of moka5. She led the SUIF project which produced one of the most popular research compilers, and pioneered numerous compiler techniques used in industry.

Ravi Sethi launched the research organization in Avaya and is president of Avaya Labs. Previously, he was a senior vice president at Bell Labs in Murray Hill and chief technical officer for communications software at Lucent Technologies.

He has held teaching positions at the Pennsylvania State University and the University of Arizona, and has taught at Princeton University and Rutgers. He is a fellow of the ACM.

Jeffrey Ullman is CEO of Gradiance and a Stanford W. Ascherman Professor of Computer Science at Stanford University. His research interests include database theory, database integration, data mining, and education using the information infrastructure. He is a member of the National Academy of Engineering, a fellow of the ACM, and winner of the Karlstrom Award and Knuth Prize.

➦ **ALSO AVAILABLE...**



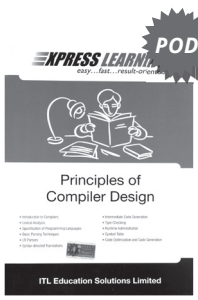
Compilers: Principles and Practice

H. Dave / B. Dave

ISBN: 9788131764916
Pages: 536

E-Book available

➦ **ALSO AVAILABLE...**

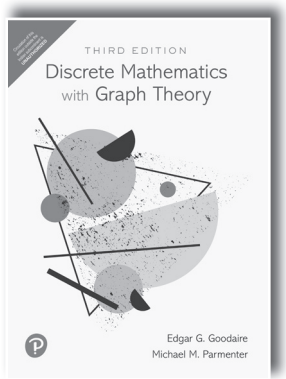


Express Learning - Principles of Compiler Design

ITL Education Solutions Limited

ISBN: 9788131761267
Pages: 184

E-Book available



ISBN: 9789353433017

Discrete Mathematics with Graph Theory, 3/e

Edgar Goodaire | **Michael Parmenter**

592 | © **2019**

ABOUT THE BOOK

Far more "user friendly" than the vast majority of similar books, this text is truly written in a friendly, conversational, humorous style with the "beginning" reader in mind. The pace is tight, the style is light, and the text emphasizes theorem proving throughout. The authors emphasize "Active Reading," a skill vital to success in learning how to think mathematically and write clean, error-free programs.

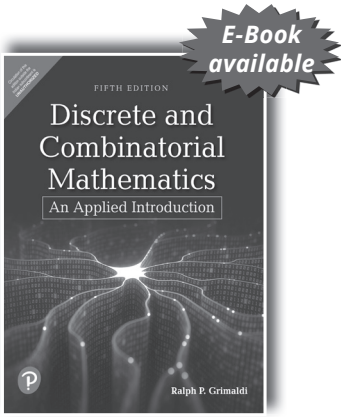
FEATURES

- A friendly, conversational, humorous style – Makes this top seller stimulating and engaging for the reader.
- Emphasis on writing and critical-thinking skills.
- More than 300 worked examples and 3500 exercises. The problem sets are carefully graded by level of difficulty.
- A FREE Student Solutions Manual is built into the back of the text.
- Topics in discrete math are used as a vehicle for teaching proofs.
- An unusually strong emphasis on graph theory, incorporating its coverage throughout six chapters.

CONTENTS

ABOUT THE AUTHOR

Edgar Goodaire Honorary Research Professor (retired). PhD British Columbia, 1973 B.Sc. Toronto, 1969. CMS Distinguished Service Award, 2004.



ISBN: 9789353433055

Discrete and Combinatorial Mathematics, 5/e

Ralph P. Grimaldi

1008 | © **2019**

ABOUT THE BOOK

This fifth edition continues to improve on the features that have made it the market leader. The text offers a flexible organization, enabling instructors to adapt the book to their particular courses. The book is both complete and careful, and it continues to maintain its emphasis on algorithms and applications. Excellent exercise sets allow students to perfect skills as they practice. This new edition continues to feature numerous computer science applications—making this the ideal text for preparing students for advanced study.

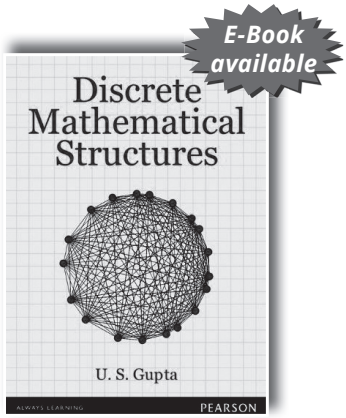
FEATURES

- Enhanced mathematical approach with carefully thought out examples, including many examples with computer sciences applications.
- New material on cryptology, private-key cryptosystems and public-key RSA cryptosystems.
- Expanded treatment of discrete probability.
- Includes historical reviews and biographies that bring a human element to their assignments.
- Provides chapter summaries to allow students to review what they have learned.

CONTENTS

ABOUT THE AUTHOR

Ralph Peter Grimaldi (born January 1943) is an American mathematician specializing in discrete mathematics who is a full professor at Rose-Hulman Institute of Technology.



ISBN: 9789332521391

Discrete Mathematical Structures

U.S Gupta

576 | © **2014**

ABOUT THE BOOK

Discrete Mathematical Structures provides comprehensive, reasonably rigorous and simple explanation of the concepts with the help of numerous applications from computer science and engineering.

Every chapter is equipped with a good number of solved examples that elucidates the definitions and theorems discussed. Chapter-end exercises are graded, with the easier ones in the beginning and then the complex ones, to help students for easy solving.

FEATURES

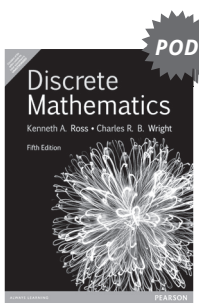
- Over 250 unsolved questions
- Around 400 solved examples

CONTENTS

ABOUT THE AUTHOR

Uma Shanker Gupta joined the department of mathematics, the University of Roorkee (presently IIT-Roorkee), in 1967, after teaching for five years at Ewing Christian Degree College, Allahabad. He was awarded PhD (Mathematics) by the University of Roorkee in 1971. He has been a reviewer of many International journals like Journal of Applied Mechanics, Journal of Sound and Vibration to name a few. He became EMERITUS FELLOW in 2004 and held this position till 2006.

➦ ALSO AVAILABLE...

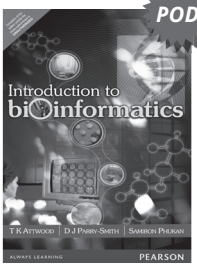


Discrete Mathematics, 5/e

A. Ross / R. B. Wright

ISBN: 9788131790618
Pages: 635

BIOINFORMATICS



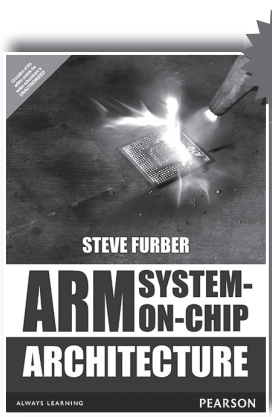
POD

Introduction to Bioinformatics

Attwood / Smith / Phukan

ISBN: 9788177586411
Pages: 256

E-Book available



ISBN: 9789332555570

ARM System-on-Chip Architecture, 2/e

Steve Furber

432 | © **2016**

ABOUT THE BOOK

About the Book ARM System-on-Chip Architecture presents and discusses the major issues of system-on-chip design, including memory hierarchy, caches, memory management, on-chip buses, on-chip debug and production tests. It provides an overview of the ARM processor family, enabling the reader to decide which ARM is best for the job in hand, describes the ARM and Thumb programming models enabling the designer to begin to develop applications. It also covers all the latest ARM products and developments, including StrongARM, the ARM9 and ARM10 series of cores, and the ARM-based SoC components at the heart of Ericsson's Bluetooth technology, the Psion Series 5 PDA and Samsung's SGH2400 GSM handset.

CONTENTS

ABOUT THE AUTHOR

Steve Furber has a long association with the ARM, having helped create the first ARM chips during the 1980s. Now an academic, but still actively involved in ARM development, he presents an authoritative perspective on the many complex factors that influence the design of a modern system-on-chip and the microprocessor core that is at its heart.

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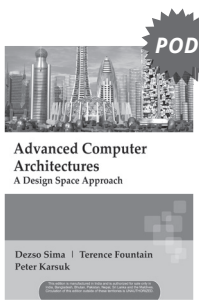
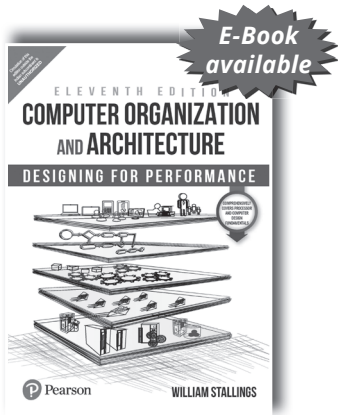


Advanced Computer Architectures: A Design Space Approach

Sima / Fountain / Karsuk

ISBN: 9788131702086
Pages: 792



ISBN: 9789356061590

Computer Organization and Architecture, 11/e

William Stallings

896 | © **2022**

ABOUT THE BOOK

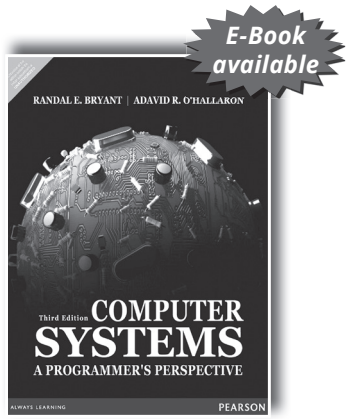
Computer Organization and Architecture, 11th Edition is about the structure and function of computers. Its purpose is to present, as clearly and completely as possible, the nature and characteristics of modern-day computer systems. Written in a clear, concise, and engaging style, author William Stallings provides a thorough discussion of the fundamentals of computer organization and architecture and relates these to contemporary design issues. Subjects such as I/O functions and structures, RISC, and parallel processors are thoroughly explored alongside real-world examples that enhance the text and build student interest. Incorporating brand-new material and strengthened pedagogy, the 11th Edition keeps students up to date with recent innovations and improvements in the field of computer organization and architecture.

CONTENTS

1. Basic Concepts and Computer Evolution
2. Performance Concepts
3. A Top-Level View of Computer Function and Interconnection
4. The Memory Hierarchy: Locality and Performance
5. Cache Memory
6. Internal Memory
7. External Memory
8. Input/Output
9. Operating System Support
10. Number Systems
11. Computer Arithmetic
12. Digital Logic
13. Instruction Sets: Characteristics and Functions
14. Instruction Sets: Addressing Modes and Formats
15. Assembly Language and Related Topics
16. Processor Structure and Function
17. Reduced Instruction Set Computers
18. Instruction-Level Parallelism and Superscalar Processors
19. Control Unit Operation and Microprogrammed Control
20. Parallel Processing
21. Multicore Computers

ABOUT THE AUTHOR

Dr. William Stallings has authored 18 textbooks and over 70 books on computer security, computer networking, and computer architecture. With over 30 years' experience in the field, he has worked as a technical contributor, technical manager, and an executive at several high-technology firms. Currently, he is an independent consultant whose clients have included computer and networking manufacturers and customers, software development firms, and leading-edge government research institutions. He has received the award for the best computer science textbook of the year thirteen times from the Text and Academic Authors Association.



ISBN: 9789332573901

Computer Systems: A Programmer's Perspective, 3/e

Randal E. Bryant | David R. O'Hallaron

1,120 | © 2016

ABOUT THE BOOK

Computer systems: A Programmer's Perspective explains the underlying elements common among all computer systems and how they affect general application performance. Written from the programmer's perspective, this book strives to teach students how understanding basic elements of computer systems and executing real practice can lead them to create better programs.

FEATURES

- A carefully planned 12 chapter layout that covers all of the core topics of computer programming
- Chapter 1 uses a simple "hello world" program to introduce the major concepts and themes of computer programming.
- Chapter 2 dives into the topic of computer arithmetic, considering how numbers are represented in computer programs and how they affect value coding. The chapter places a special emphasis on the properties of unsigned and two's-compliment number representations. It gives students necessary insight into arithmetic from the programmers perspective and why it's so important.
- Chapter 3 teaches students how to read the x86-64 code generated by a C compiler, covering the basic instruction patterns for different control constructs, implementation procedures, and the allocation of different data structures. This chapter also discusses the implementation of integer and floating point arithmetic and takes a machine-level view of programs to understand certain code vulnerabilities.
- Chapter 4 introduces students to basic combinational and sequential logic elements and shows how they can be used in a simplified subset of the x86-64 instruction set called Y86-64. It starts with a single-cycle datapath and moves onto a discussion of pipelining.
- Chapter 5 gives students techniques for improving code performance with transformations that reduce work and enhance instruction-level parallelism.
- Chapter 6 covers different types of RAM and ROM memory systems, describing their hierarchical arrangement. The chapter makes the abstract concept tangible by using the analogy of a "memory mountain" with ridges of temporal locality and slopes of spatial locality. Students learn that improving temporal and spatial locality improves performance.
- Chapter 7 discusses both static and dynamic linking, areas included in most systems text where programmers make their most confusing errors.
- Chapter 8 explains exceptional control flow at all levels of the system, from simple hardware interrupts to nonlocal jumps in C that break the stack discipline. This chapter introduces the fundamental idea of a process by teaching students how it works and how it is created and manipulated from application programs.
- Chapter 9 shows students key characteristics of the virtual memory system and how it works, addressing issues such as managing and manipulating. This chapter shows the benefits of covering the hardware and software aspects of computer systems in a unified way, which most books do not.
- Chapter 10 covers the basic concepts of Unix I/O, such as files and descriptors. It explains how files are shared, how I/O redirection works, and how to access file metadata.
- Chapter 11 discusses networks, I/O devices that tie together many of the ideas presented earlier in the text. It describes the client-server model that underlies all network applications and presents a programmer's view of the internet.
- Chapter 12 uses internet design as an example that introduces students to concurrent programming. By comparing and contrasting the three basic mechanisms for writing concurrent programs (processes, I/O multiplexing, and threads) students learn how to build concurrent internet servers.

CONTENTS

Part I: Program Structure and Execution

1. A Tour of Computer Systems
2. Representing and Manipulating Information
3. Machine-Level Representation of Programs
4. Processor Architecture
5. Optimizing Program Performance
6. The Memory Hierarchy

Part II: Running Programs on a System

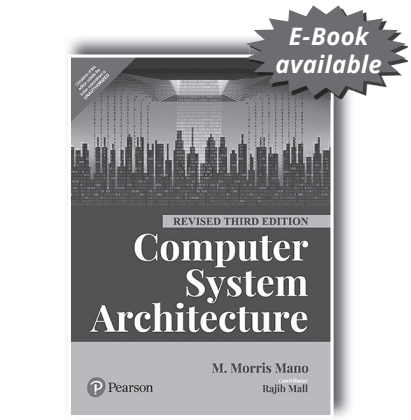
7. Linking
8. Exceptional Control Flow
9. Virtual Memory

Part III: Interaction and Communication Between Programs

10. System-Level I/O
11. Network Programming
12. Concurrent Programming

ABOUT THE AUTHOR(S)

Randal E. Bryant, Carnegie Mellon University
David R. O'Hallaron, Carnegie Mellon University



ISBN: 9789332585607

Computer System Architecture, 3/e (Revised)

M. Morris Mano | Rajib Mall

616 | © 2017

ABOUT THE BOOK

Pearson presents the much-awaited revised edition of its pioneer title on ***Computer System Architecture*** by Morris Mano.

This revised text is spread across fifteen chapters with substantial updates to include the latest developments in the field. The first eight chapters of the book focuses on the hardware design and computer organization, while the remaining seven chapters introduces the functional units of digital computer. The pedagogy of the book has been enhancedto enablethe learners in assessing their understanding of the key concepts.

The plan for this revised edition has been thoroughly reviewed by eminent faculties of various technical universities across the country and their inputs have been incorporated to enhance the contents of this edition.

FEATURES

- New chapters on Introduction to architecture and Peripheral devices
- New sections on master-slave flip flop, counters, code converters, and horizontal and vertical microprogramming
- Introduces Multibus organization, memory addressing and memory technology
- Expanded discussion on pipelining, parallelism, and Amdahl's law
- Over 150 new multiple choice questions and updated exercise problems

CONTENTS

1. Introduction
2. Digital Logic circuits
3. Digital Components
4. Data Representation
5. Register Transfer and Microoperations
6. Basic computer organization and design
7. Programming the Basic Computer
8. Microprogrammed Control
9. Central Processing Unit
10. Pipeline and Vector Processing
11. Computer Arithmetic
12. Input-Output Organization
13. Memory Organization
14. Multiprocessors
15. Peripheral Devices

ISBN: 9789332571242

Structured Computer Organization, 6/e

Andrew S. Tanenbaum | Todd Austin

784 | © 2016

ABOUT THE BOOK

Structured Computer Organization is a bestselling text that provides an accessible introduction to computer hardware and architecture. The book takes a modern structured, layered approach to understanding computer systems. It's been thoroughly updated to reflect today's most critical new technologies and the latest developments in computer organization and architecture. Tanenbaum's renowned writing style and painstaking research make this one of the most accessible and accurate books available, maintaining the author's popular method of presenting a computer as a series of layers, each one built upon the ones below it, and understandable as a separate entity.

FEATURES

- Uses a clear, approachable writing style to introduce students to multilevel machines, CPU organization, gates and Boolean algebra, microarchitecture, ISA level, flow of controls, virtual memory, and assembly language.
- Covers common devices in a practical manner rather than with an abstract discussion of theory and concepts.

CONTENTS

ABOUT THE AUTHOR(S)

Andrew S. Tanenbaum has a B.S. Degree from M.I.T. and a Ph.D. from the University of California at Berkeley. He is currently a Professor of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands, where he heads the Computer Systems Group. Until 2005, he was the Dean of the Advanced School for Computing and Imaging, an inter-university graduate school doing research on advanced parallel, distributed, and imaging systems.
Todd Austin is a Professor of Electrical Engineering and Computer Science at the University of Michigan in Ann Arbor.

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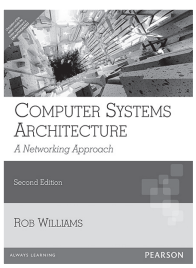
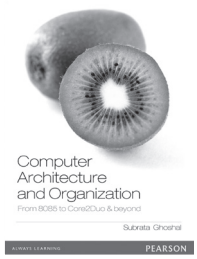


Computer System Architecture, 2e

Rob Williams

ISBN: 9788131763476
Pages: 752

E-Book available



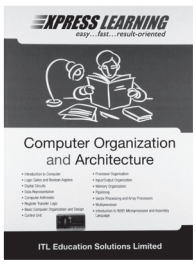
Computer Architecture and Organization

Subrata Ghoshal

ISBN: 9788131761557
Pages: 576

E-Book available

Web Supplements

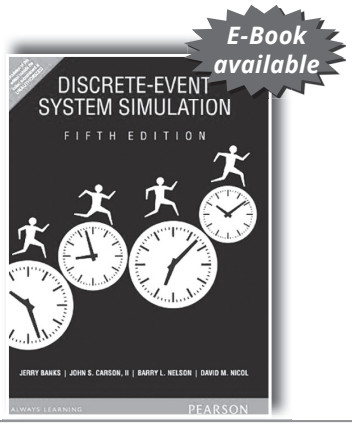


Express Learning - Computer Organization and Architecture

ITL Education Solutions Limited

ISBN: 9788131773390
Pages: 312

E-Book available



ISBN: 9789332518759

Discrete-Event System Simulation, 5/e

Jerry Banks | John S. Carson, II | Barry L. Nelson | David M. Nicol

530 | © 2013

ABOUT THE BOOK

While most books on simulation focus on particular software tools, ***Discrete Event System Simulation*** examines the principles of modeling and analysis that translate to all such tools. This language-independent text explains the basic aspects of the technology, including the proper collection and analysis of data, the use of analytic techniques, verification and validation of models, and designing simulation experiments. It offers an up-to-date treatment of simulation of manufacturing and material handling systems, computer systems, and computer networks.

FEATURES

- Simulation of Communications Systems includes new material on simulation beta distribution, negative binomial distribution and non-stationary processes.
- Subset selection methods used for output analysis of several alternatives are discussed.
- Numerous solved examples enhance understanding of concepts.
- Abundant figures, tables and end-chapter exercises are provided.
- Application topics promote understanding of real-world uses.
- Interpretation of simulation software output explains how to use software tools correctly.
- Discussion of simple tools for complex input modeling problems develops more realistic valid models.

CONTENTS

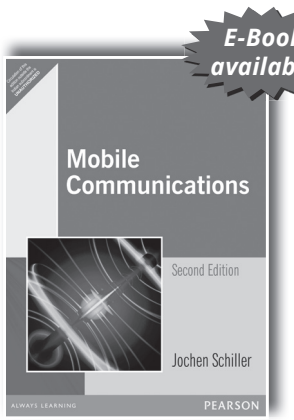
ABOUT THE AUTHOR(S)

Jerry Banks retired in 1999 as a professor in the School of Industrial and Systems Engineering, Georgia Institute of Technology, after which he worked as senior simulation technology advisor for Brooks Automation.

John S. Carson II is an independent simulation consultant. Formerly, he held management and consulting positions in the simulation services and software industry, including positions at AutoSimulations and the AutoMod Group at Brooks Automation. He was the co-founder and president of the simulation services firm Carson/Banks &Associates.

Barry L. Nelson is the Charles Deering McCormick Professor and Chair of the Department of Industrial Engineering and Management Sciences at Northwestern University.

David M. Nicol is professor of electrical and computer engineering at the University of Illinois at Urbana-Champaign.



ISBN: 9788131724262

Mobile Communications, 2/e

Jochen Schiller

512 | © 2008

Web Supplements

ABOUT THE BOOK

Mobile Communications introduces the topic by providing a thorough grounding in the field of mobile communications. A wide range of examples is combined with a strong pedagogy to allow the book's use in high level courses and for self-study. This book provides a non-mathematical, computer science focus.

FEATURES

- Contains over 150 questions, over 250 illustrations, and a comprehensive glossary.
- Explains the most current developments in mobile communications in both research and industry in a well-structured context with detailed technical background.
- Conclude chapters with a set of exercises for self-study and references to standards, organizations, and research work related to the topic.
- Provides an up-to-date idea of the mobile/wireless communications field.
- Significant changes to be on top of this fast-developing topic.

CONTENTS

1. Introduction.
2. Wireless transmission.
3. Medium access control.
4. Telecommunications systems.
5. Satellite systems.
6. Broadcast systems.
7. Wireless LAN.
8. Mobile network layer.
9. Mobile transport layer.
10. Support for mobility.
11. Outlook.

ABOUT THE AUTHOR(S)

Jochen Schiller, Institute of Informatics, Freuie Universitat Berlin

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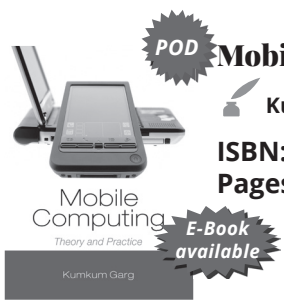
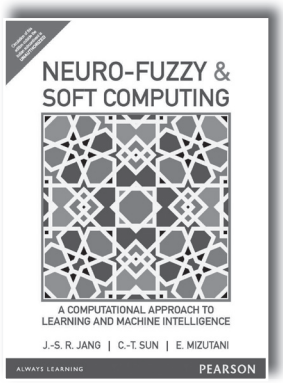


Mobile Computing

Kumkum Garg

ISBN: 9788131731666
Pages: 232

Web Supplements



ISBN: 9789332549883

Neuro-Fuzzy and Soft Computing:
A Computational Approach to Learning and Machine Intelligence

Jyh-Shing Roger Jang | Chuen-Tsai Sun | Eiji Mizutani

614 | © **2015**

ABOUT THE BOOK

Intended for use in courses on computational intelligence at either the college senior or first-year graduate level.

This text provides the first comprehensive treatment of the methodologies underlying neuro-fuzzy and soft computing, an evolving branch within the scope of computational intelligence. The book places equal emphasis on theoretical aspects of covered methodologies, empirical observations and verifications of various applications in practice.

FEATURES

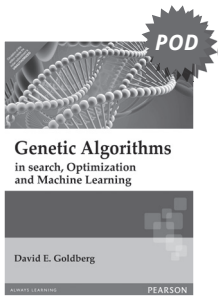
- The book is oriented toward methodologies that are likely to be of practical use; many step-by-step examples are included to complement explanations in the text.
- Specially designed figures provide a visual reinforcement for as many ideas and concepts as possible. These figures were generated using MATLAB and these MATLAB files are available via FTP or WWW.
- Includes exercises, some of which involve MATLAB programming tasks which can be expanded into suitable term projects. This will provide the student with hands-on programming experiences for practical problem-solving.
- Each chapter includes a reference list to the research literature. This will enable students to pursue individual topics in greater depth.

CONTENTS

ABOUT THE AUTHOR(S)

Jyh-Shing Roger Jang, Tsing-Hua University
Chuen-Tsai Sun, National Chiao Tung University
Eiji Mizutani, Kansai Paint Company

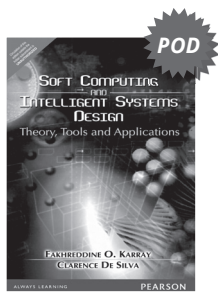
➦ ALSO AVAILABLE...



Genetic Algorithms

David E. Goldberg

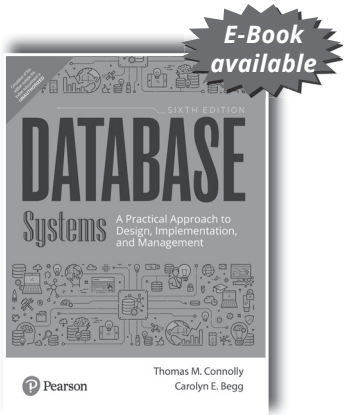
ISBN: 9788177588293
Pages: 432



Soft Computing and Intelligent Systems

Karray / Silva

ISBN: 9788131723241
Pages: 584



ISBN: 9789353438913

Database Systems: A Practical Approach to Design, Implementation, and Management, 6/e

Thomas Connolly | **Carolyn Begg**

1440 | © **2019**

ABOUT THE BOOK

This best-selling text introduces the theory behind databases in a concise yet comprehensive manner, providing database design methodology that can be used by both technical and non-technical readers. The methodology for relational Database Management Systems is presented in simple, step-by-step instructions in conjunction with a realistic worked example using three explicit phases—conceptual, logical, and physical database design.

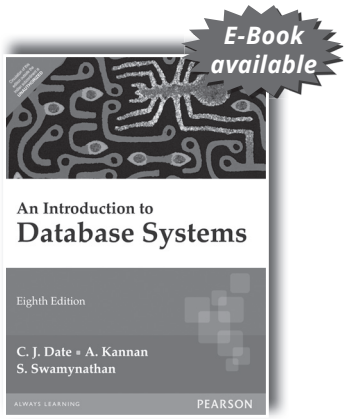
FEATURES

- Database Design Methodology that can be Used by Both Technical and Non-technical Readers
- A Comprehensive Introduction to the Theory behind Databases
- A Clear Presentation that Supports Learning

CONTENTS

ABOUT THE AUTHOR

Thomas M. Connolly
z **Carolyn E. Begg** University of the west of Scotland



ISBN: 9788177585568

An Introduction to Database Systems, 8/e

C. J. Date | A. Kannan | S. Swamynathan

968 | © 2006

Web Supplements

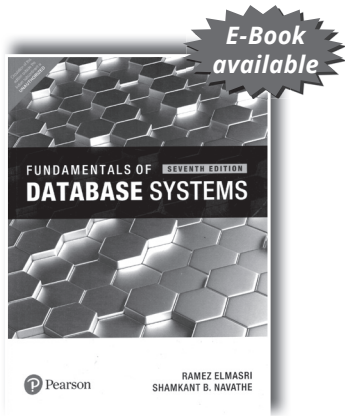
ABOUT THE BOOK

An introduction to database systems provides a comprehensive introduction to the very large field of database systems. It furnishes a solid grounding in the foundations of database technology, while shedding some light on how the field is likely to develop in the future. This edition has been expanded and rewritten to stay current with database system trends and developments, however the overall emphasis remains on insight and understanding, and not just on formalisms.

FEATURES

- SQL coverage has been upgraded to the level of current standard.
- Provides exceptionally strong and expanded coverage of the relational model.
- Material on types or domains has been expanded for wider coverage.
- Chapter 9 on Integrity has been completely rewritten for better understanding.
- Chapter 15 on Recovery and Chapter 16 on Concurrency provides extensive details.
- Includes careful analysis of some unorthodox conclusions regarding the ACID properties of transactions.
- Chapter 20 on Type Inheritance and chapter 23 on Temporal Databases have been completely rewritten to reflect latest research developments.
- Chapter 27 on XML covers the relationship between databases and emerging XML standards.
- The appendices include An overview of the TransRelational Model, A BNF grammar for SQL expressions, A glossary of important abbreviations,acronyms and symbols used in the text and Storage Structures and Access Methods.

CONTENTS



ISBN: 9789332582705

Fundamentals of Database System, 7/e

Ramez Elmasri | Shamkant B. Navathe

1,240 | © 2017

ABOUT THE BOOK

Pearson introduces the seventh edition of its best seller on database systems by Elmasri and Navathe. This edition is thoroughly revised to provide an in-depth and up-to-date presentation of the most important aspects of database systems and applications, and related technologies. It systematically builds on the core fundamental concepts necessary for designing, using, and implementing database systems and database applications, which is the winning feature of this book."

FEATURES

- Chapters have been added and restructured to keep the text updated with recent concepts in big data processing, including MapReduce and Hadoop
- Discussions of new technologies such as SQL systems and java technologies for web database programming, and other various new developments in databases are discussed throughout
- Updated pedagogy and real world examples enhance the text throughout

CONTENTS

ABOUT THE AUTHOR(S)

Ramez Elmasri, University of Texas at Arlington
Shamkant B. Navathe, University of Texas at Arlington

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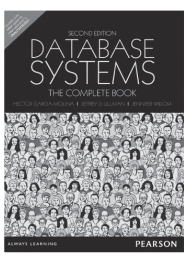
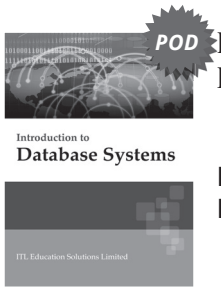


Database Systems: The Complete Book, 2/e

Mouna / Ullman / Widom

ISBN: 9789332518674
Pages: 1139

E-Book available



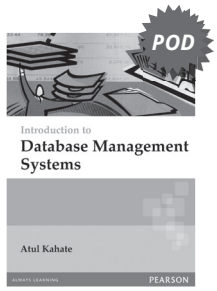
Introduction to Database Systems

E-Book available

ITL Education Solutions Limited

ISBN: 9788131731925
Pages: 580

Web Supplements



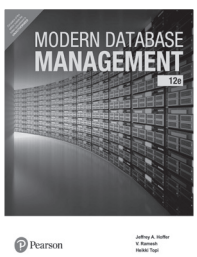
Introduction to Database Management Systems

Atul Kahate

ISBN: 9788131700785
Pages: 536

E-Book available

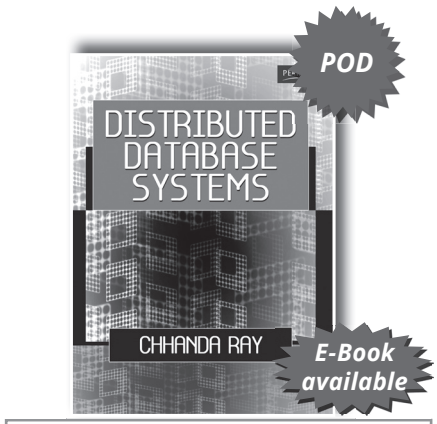
Web Supplements



Modern Database Management, 12/e

Hoffer / Ramesh / Topi

ISBN: 9789386873262
Pages: 620



ISBN: 9788131727188

Distributed Database Systems

Chhanda Ray

324 | © 2009

Web Supplements

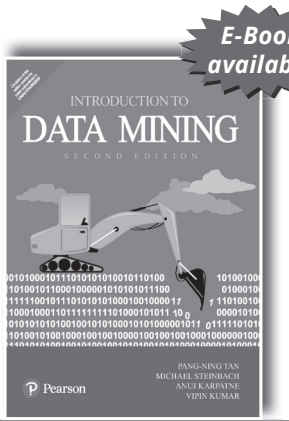
ABOUT THE BOOK

Distributed Database Systems discusses the recent and emerging technologies in the field of distributed database technology. The material is up-to-date, highly readable, and illustrated with numerous practical examples. The mainstream areas of distributed database technology, such as distributed database design, distributed DBMS architectures, distributed transaction management, distributed concurrency control, deadlock handling in distributed systems, distributed recovery management, distributed query processing and optimization, data security and catalog management, have been covered in detail. The popular distributed database systems, SDD-1 and R*, have also been included.

FEATURES

- Covers relational DBMS and current networking technologies.
- Comprehensive coverage of parallel databases, distributed DBMS architectures, mobile, object-oriented and object-relational databases.
- Discussion of advanced transaction models and workflows, and random strategies for query optimization.
- A chapter devoted to data warehousing and data mining.
- Case studies on the latest distributed database systems.
- Pedagogy includes chapter objectives and summaries, key definitions, examples, multiple choices and review questions.

CONTENTS



ISBN: 9789354491047

Introduction to Data Mining, 2/e

Pang-Ning Tan | **Michael Steinbach** | **Anuj Karpatne** | **Vipin Kumar**

856 | © **2021**

ABOUT THE BOOK

As with the first edition, the second edition of the book provides a comprehensive introduction to data mining and is designed to be accessible and useful to students, instructors, researchers, and professionals. Areas covered include data preprocessing, predictive modeling, association analysis, cluster analysis, anomaly detection, and avoiding false discoveries. The goal is to present fundamental concepts and algorithms for each topic, thus providing the reader with the necessary background for the application of data mining to real problems.

FEATURES

- New - As a result of developments in the industry, the text contains a deeper focus on big data and includes chapter changes in response to these advances.
- New - This edition contains new and updated approaches to data mining, specifically among the anomaly detection section.
- New - An additional final chapter discusses statistical concepts in the context of data mining techniques, something not found in other textbooks.
- Updated - The classification chapters have been significantly changed to reflect the latest information in the industry, including a new section on deep learning and updates to the advanced classification chapter.

CONTENTS

ABOUT THE AUTHOR(S)

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Michael Steinbach, University of Minnesota
Anuj Karpatne, University of Minnesota
Vipin Kumar, University of Minnesota

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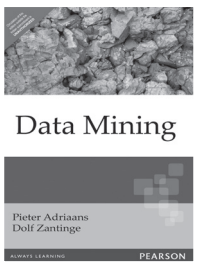
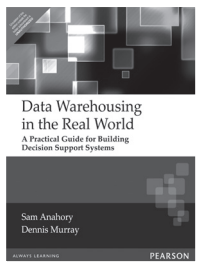


Data Mining

Adriaans / Zantinge

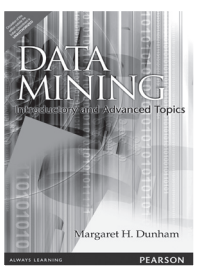
ISBN: 9788131707173
Pages: 168



Data Warehousing in the Real World

Sam Anahory / Dennis Murray

ISBN: 9788131704592
Pages: 368



Data Mining: Introductory and Advanced Topics

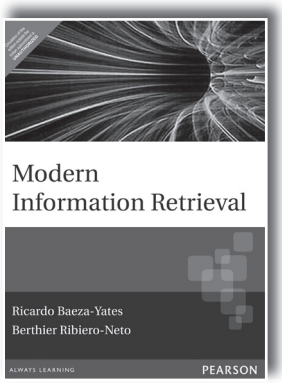
Margaret H. Dunham

ISBN: 9788177587852
Pages: 328

E-Book available

Web Supplements

Modern Information Retrieval



ISBN: 9788131709771

Ricardo Baeza-Yates | Berthier Ribiero-Neto

534 | © 2007

ABOUT THE BOOK

We live in the information age, where swift access to relevant information in whatever form or medium can dictate the success or failure of businesses or individuals. The timely provision of relevant information with minimal 'noise' is critical to modern society and this is what information retrieval (IR) is all about. It is a dynamic subject, with current changes driven by the expansion of the World Wide Web, the advent of modern and inexpensive graphical user interfaces and the development of reliable and low-cost mass storage devices. ***Modern Information Retrieval*** discusses all these changes in great detail and can be used for a first course on IR as well as graduate courses on the topic. The book comprises two portions which complement and balance each other.

FEATURES

- Text IR-all the main IR models, query operations, text operations, indexing and searching (three of them co-authored with Gonzalo Navarro or Nivio Ziviani)
- The Web-challenges, measures and models, search engines, directories, query languages, metasearches and trends
- Parallel and Distributed IR-algorithms and architectures (Eric Brown)
- User Interfaces and Visualization-the main interface paradigms for query formation and visualization of results (Marti A. Hearst)
- Multimedia IR: Models and Languages-including MULTOS and SQL3 (Elisa Bertino, Barbara Catania and Elena Ferrari)
- Multimedia IR: Indexing and Searching-R-trees and GEMINI and QBIC (Christos Faloutsos)
- Libraries and Bibliographical Systems-online systems and public access catalogs (Edie M. Rasmussen)
- Digital Libraries-the main challenges for effective deployment (Edward A Fox and Ohm Sornil)

CONTENTS

1. Introduction
2. Modeling
3. Retrieval evaluation
4. Query languages (with Gonzalo Navarro)
5. Query operations
6. Text languages and properties (with Nivio Ziviani)
7. Text operations
8. Indexing and searching (with Gonzalo Navarro)
9. Parallel and distributed IR (Eric Brown)
10. User interfaces and visualization (Marti Hearst)
11. Multimedia IR: models and languages (Elisa Bertino, Barbara Catania and Elena Ferrari)
12. Multimedia IR: indexing and searching (Christos Faloutsos)
13. Searching the web
14. Libraries and bibliographical systems (Edie Rasmussen)
15. Digital libraries (Edward A. Fox and Ohm Sornil).

ABOUT THE AUTHOR(S)

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Berthier Ribeiro-Neto, Univ Federal de Minas Gerais, Brazil

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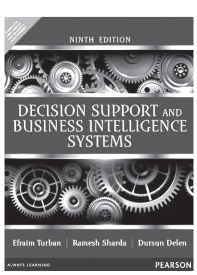

Business Intelligence and Analytics : Systems for Decision Support, 10/e

Sharda / Turban / Delen

ISBN: 9789352866489
Pages: 688

ISBN: 9789356060647

E-Commerce 2021: Business, Technology, and Society, 17/e

Kenneth C. Laudon | Carol Guercio Traver

912 | © 2022

ABOUT THE BOOK

The most up-to-date, comprehensive overview of e-commerce today Lively and fun to read, E-commerce 2021: Business, Technology, and Society is an in-depth, thought-provoking introduction to e-commerce focusing on key concepts and the latest empirical and financial data. Hundreds of examples from companies such as Facebook®, Google®, Twitter®, Amazon®, Pinterest®, eBay®, Uber®, WhatsApp®, and Snapchat® illustrate how e-commerce is altering business practices and driving shifts in the global economy. The entire16th edition has been updated through October 2020 and includes up-to-date coverage of privacy and piracy, government surveillance, cyberwar, fintech, social local-mobile marketing, internet sales taxes, and intellectual property.

FEATURES

- Students learn about the three major driving forces behind e-commerce – business development and strategy, technological innovations, and social controversies and impacts – and how they relate to chapter concepts.
- UPDATED – Opening, closing, Insight On, and other extensive cases throughout the text are all new or updated in this edition. The cases place coverage in the context of actual e-commerce businesses.
- NEW – The impact of the Covid-19 pandemic on e-commerce is reflected throughout, with special attention paid to the pandemic's effect on the expansion of on-demand services, the small business shift to e-commerce, Internet infrastructure challenges, and the quest to compete with Amazon.
- UPDATED – Data, figures, and tables have been updated through October 2020 with the latest marketing and business intelligence available from a range of industry and government sources.

CONTENTS

ABOUT THE AUTHOR(S)

Kenneth C. Laudon, was a professor of information systems at New York University School of Business. He held a BA in economics from Stanford and a PhD from Columbia University. He authored 12 books dealing with electronic commerce, information systems, organizations, and society. Professor Laudon wrote more than 40 articles concerning social, organizational, and management impacts of information systems, privacy, ethics, and multimedia technology.

Carol Guercio Traver, is a graduate of Yale Law School and Vassar College. She has many years of experience representing major corporations as well as small and medium-sized businesses as an attorney with NYC law firm Proskauer, with expertise in intellectual property law, technology law, internet law, and privacy law, as well as general corporate law. Carol is also a co-founder, with Ken Laudon, of Azimuth Interactive, one of the first ed tech firms and creator of some of the first interactive software training and testing systems for higher education and corporate training, and, today, a provider of digital media and publisher services for the higher education industry.

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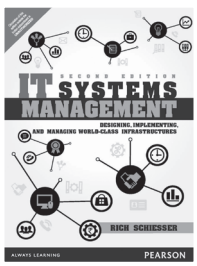
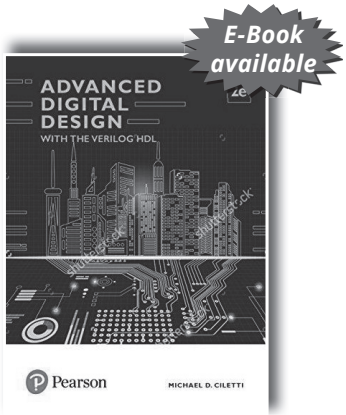


IT Systems Management: Designing, Implementing, and Managing World-Class Infrastructures, 2/e

Rich Schiesser

ISBN: 9789332550193
Pages: 528

E-Book available



ISBN: 9789332584464

Advanced Digital Design with the Verilog HDL, 2/e

Michael D. Ciletti

992 | © 2017

ABOUT THE BOOK

For an advanced course in digital design for seniors and first-year graduate students in electrical engineering, computer engineering, and computer science. This book builds on the student's background from a first course in logic design and focuses on developing, verifying, and synthesizing designs of digital circuits. The Verilog language is introduced in an integrated, but ive manner, only as needed to support design examples (includes appendices for additional language details). It addresses the design of several important circuits used in computer systems, digital signal processing, image processing, and other applications."

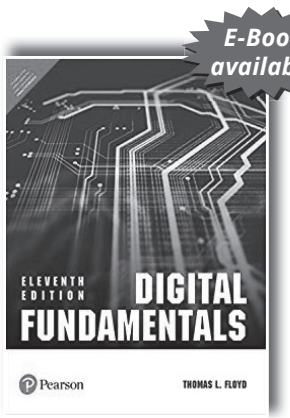
FEATURES

- Provides a brief review of basic principles in combinational and sequential logic
- Focuses on modern digital design methodology
- Demonstrates the utility of ASM and ASMD charts for behavioral modeling
- Clearly distinguishes between synthesizable and nonsynthesizable loops
- Provides several problems with a wide range of difficulty after each chapter
- Combines a solution manual with an on-line repository of additional worked exercises

CONTENTS

ABOUT THE AUTHOR

Michael Ciletti is Professor Emeritus in the Department of Electrical and Computer Engineering at the University of Colorado, Colorado Springs. His areas of interest include Modeling, synthesis and verification of digital systems with hardware description languages, system-level design languages, and embedded systems with FPGAs.



ISBN: 9789332584600

Digital Fundamentals, 11/e

Thomas L. Floyd

672 | © **2017**

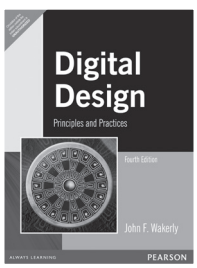
ABOUT THE BOOK

Digital Fundamentals, Eleventh Edition, continues its long and respected tradition of offering students a strong foundation in the core fundamentals of digital technology, providing basic concepts reinforced by plentiful illustrations, examples, exercises, and applications. The text's teaching and learning resources include an Instructor's Manual, PowerPoint lecture slides, and Test Bank, as well as study resources for students.

FEATURES

- New! A new boxed feature, Implementation, shows how various logic functions can be implemented using fixed-function devices or by writing a VHDL program for PLD implementation.
- New! A new chapter on data transmission has been added and includes extensive coverage of standard busses.
- New! A new page layout and design provides better visual appearance and ease of use.

➦ ALSO AVAILABLE...



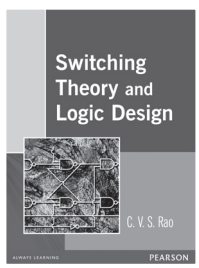
Digital Design: Principles and Practices, 4/e

John F. Wakerly

ISBN: 9788131713662
Pages: 858

E-Book available

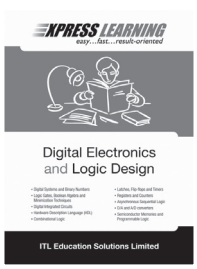
Web Supplements



Switching Theory and Logic Design

C. V. S. Rao

ISBN: 9788131701836
Pages: 336

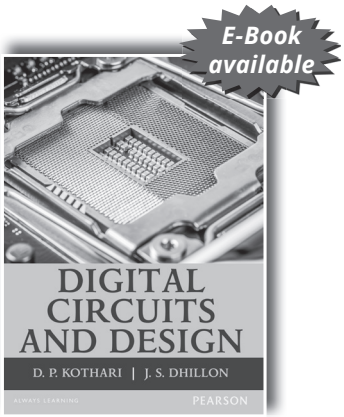


Express Learning Series – Digital Electronics and Logic Design

ITL Education Solutions Limited

ISBN: 9788131787045
Pages: 336

E-Book available



ISBN: 9789332543539

Digital Circuits ad Design

D.P Kothari | J.S Dhillon

656 | © 2015

ABOUT THE BOOK

This student friendly, practical and example-driven book gives students a solid foundation in the basics of digital circuits and design. The fundamental concepts of digital electronics such as analog/digital signals and waveforms, digital information and digital integrated circuits are discussed in detail using relevant pedagogy

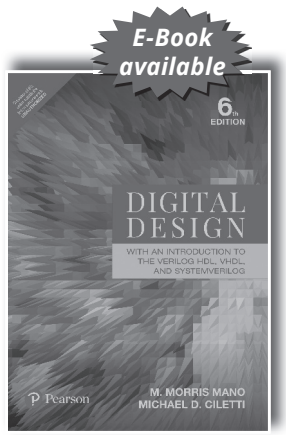
FEATURES

- Extensive coverage on:
  - Counters such as Hybrid, Decade and Presetable
  - Edge Triggered Flip Flops
  - Hardware Description Languages
  - Design of Arithmetic Logic Unit
- Exclusive chapter on Logic Description Using VHDL
- Includes topics such as synchronous/asynchronous mode circuits, pulse mode, sequential circuits, VHDL 7 segment decoder, VHDL code converters, etc
- Additional solve the examples and reading material available online
- Excellent pedagogy
  - 300+ Solved Questions
  - 600+ Unsolved Questions
  - 250+ MCQs
  - 35+ VHDL Programs

ABOUT THE AUTHOR

D P Kothari Director Research, GPGI, Nagpur Director-In-Charge, Indian Institute of Technology Delhi Former Vice Chancellor, VIT, Vellore and Former Principal, VNIT, Nagpur

J S Dhillon Professor,Department of Electrical and Instrumentation Engineering Sant Longowal Institute of Engineering and Technology, Punjab.



ISBN: 9789353062019

Digital Design : With an Introduction to the Verilog HDL, VHDL, and SystemVerilog, 6/e

M. Morris Mano | Michael D Cileti

768 | © 2018

ABOUT THE BOOK

Digital Design, Sixth edition is a modern update of the classic authoritative text on digital design. This book teaches the basic concepts of digital design in a clear, accessible manner. The book presents the basic tools for the design of digital circuits and provides procedures suitable for a variety of digital applications.

FEATURES

- Closely reflects the content of a foundation course in digital design, and the mainstream technology of today's digital systems—CMOS circuits
- Presents a clear development of a design methodology using the Verilog HDL
- Contains a smart sequence of topics to cater to different courses that adhere to traditional, manual-based, treatments of digital design; courses that treat design using an HDL; and courses that are in transition between or blend the two approaches.

New To This Edition

- This edition of Digital Design uses the latest features of IEEE Standard 1364, but only insofar as they support the authors' pedagogical objectives. The revisions and updates to the text include:
- Addition of ';Web Search Topics' at the end of each chapter to point students to additional subject matter available on the Web
- Revision of approximately one-third of the problems at the end of the chapters
- Streamlining of the discussion of Karnaugh-maps
- Inclusion of an appendix introducing semiconductor technology

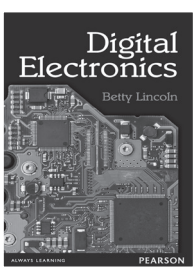
CONTENTS

ABOUT THE AUTHOR(S)

M. Morris Mano, California State University, Los Angeles

Micheal D. Ciletti, University of Colorado, Colorado Springs

➦ ALSO AVAILABLE...

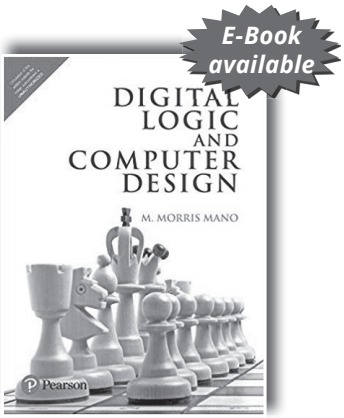


Digital Electronics

Betty Lincoln

ISBN: 9789332522299
Pages: 412

E-Book available



ISBN: 9789332542525

Digital Logic and Computer Design

M. Morris Mano

560 | © **2016**

ABOUT THE BOOK

"This book presents the basic concepts used in the design and analysis of digital systems and introduces the principles of digital computer organization and design. It discusses various methods and techniques suitable for a variety of digital system design applications and covers all aspects of digital systems. It also includes applications of Read Only Memory (ROM) and Programmable Logic Array (PLA). The flexible organization of the book permits it to be used in a variety of ways to suit the needs of courses in digital systems taught in electrical, electronics, computer science and engineering departments.

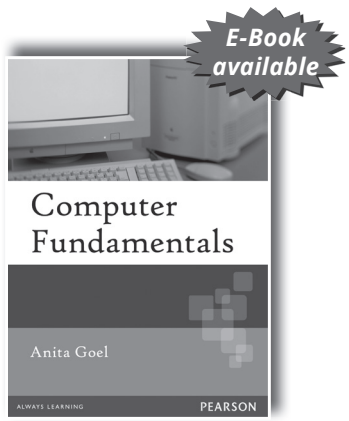
FEATURES

- Covers all aspects of digital systems from electronic gate circuits to the complex structure of microprocessor systems
- Presents the classical techniques for the logic design of combination and sequential circuits
- Facilitates a thorough understanding of the register-transfer method used for the analysis and design of processor units and control units"

CONTENTS

ABOUT THE AUTHOR

M. Morris Mano, California State University, Los Angeles



ISBN: 9788131733097

Computer Fundamentals

Anita Goel

500 | © **2010**

Web Supplements

ABOUT THE BOOK

Computer Fundamentals is specifically designed to be used at the beginner level. It covers all the basic hardware/ software concepts in Computers and its peripherals in a very lucid manner.

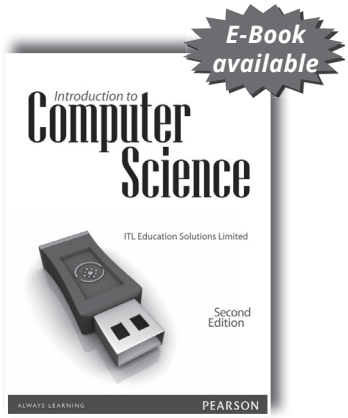
FEATURES

- Excellent pedagogy – multiple-choice questions, true/false questions, review questions and practice problems.
- Exclusive chapters on databases, multimedia, internet services and computer security.
- Includes topics on sixth generation computers, USB, zip disk, notebook computers etc.
- New terminology checklist at the end of each chapter
- Introductory coverage in Windows 7.
- Detailed discussion on MS Office 2007 tools like Word, Excel, PowerPoint.

CONTENTS

ABOUT THE AUTHOR

Dr. Anita Goel is a Reader of Department of Computer Science in Dyal Singh College, Delhi University.



ISBN: 9788131760307

Introduction to Computer Science, 2/e

ITL Education Solutions Limited

528 | © **2011**

Web Supplements

ABOUT THE BOOK

The book furthers the first edition by including discussions on the recent topics. Few of the newly added topics are: blue-ray disk, USB drive, virtual reality etc. Inclusion of large number of practice questions make the text very useful for students in preparing for their examinations.

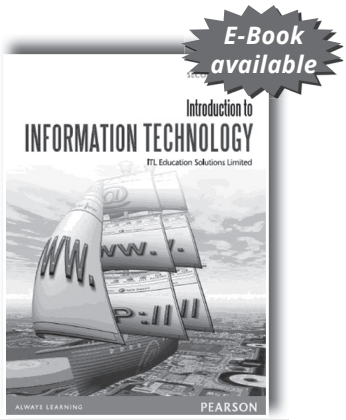
FEATURES

- Concepts supported by lots of illustrations and examples.
- Chapter revamped to include recent developments.
- Large number of unsolved questions for practice.

CONTENTS

ABOUT THE AUTHOR

ITL Education Solutions Limited (ITL ESL) is a part of the ITL group, which has operations all over the world with a significant presence in education and IT-enabled services. It specializes in handling educational projects in IT domains with a dedicated R&D wing of industry experts that helps in designing and developing content.



ISBN: 9788131760291

Introduction to Information Technology, 2/e

ITL Educational Solutions Limited

788 | © **2012**

Web Supplements

ABOUT THE BOOK

Keeping pace with the continuously changing trends in IT field, this new edition of Introduction to Information Technology incorporates the major changes that have taken place in the field of information technology since the release of its first edition, including not only the latest trends but also future technologies. The coverage of practical and historic perspectives on information technology demonstrates how concepts are applied to real systems and shows their evolution since its beginnings. Written in a clear, concise and lucid manner, each chapter is designed to be covered in two or three lectures while keeping inter-chapter dependencies to a minimum.

FEATURES

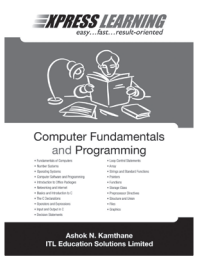
- Complete coverage of the course of various universities across India
- Inclusion of current advances like: IPTV, Blogging, RFID, Brain Computer Interface
- Exhaustive discussion on MS Office 2003
- Discussion on Windows 7
- Coverage on MS Office 2007
- Excellent pedagogy: Chapter openers, Chapter objectives, Fact files and things to remember, Further reading, Exercises

CONTENTS

ABOUT THE AUTHOR

ITL Education Solutions Limited (ITL ESL) is a part of the ITL group, which has operations all over the world with a significant presence in education and IT-enabled services. It specializes in handling educational projects in IT domains with a dedicated R&D wing of industry experts that helps in designing and developing content.

➦ ALSO AVAILABLE...



Express Learning – Computer Fundamentals and Programming

Ashok N. Kamthane

ISBN: 9788131794791
Pages: 464

E-Book available

PROGRAMMING METHODOLOGY

ISBN: 9788131705629

How to Solve it By Computer

Dromey

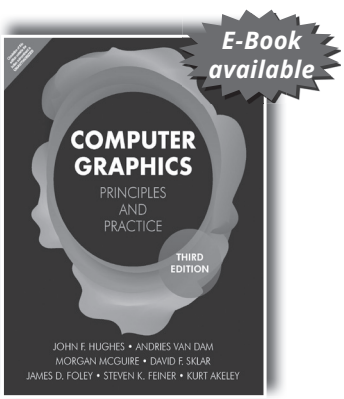
464 | © **2007**

ABOUT THE BOOK

The inspiration for the approach taken in this book has come from the classic work of Poly a on general and mathematical problem-solving. Throughout the book, a conscious effort has been made to convey something of the flavor of either a personal dialouge or an instructor-student diolouge that might take place in the solution of a problem. This style of presentation coupled with a carefully chosen set of examples, makes the book attractive to a wide range of readers. The problem sets have been carefully designed to test, reinforce, and extend the reader's understanding of the strategies and concepts presented.

CONTENTS

COMPUTER GRAPHICS



ISBN: 9789353068967

Computer Graphics: Principles and Practice, 3/e

Hughes | Van Dam | McGuire | Sklar | Foley | Feiner | Akeley

1268 | © **2019**

ABOUT THE BOOK

Computer Graphics: Principles and Practice, Third Edition, remains the most authoritative introduction to the field. The first edition, the original "Foley and van Dam," helped to define computer graphics and how it could be taught. The second edition became an even more comprehensive resource for practitioners and students alike. This third edition has been completely rewritten to provide detailed and up-to-date coverage of key concepts, algorithms, technologies, and applications.

FEATURES

- Up To Date Information - Covers today's most important 2D and 3D algorithms, mathematical principles, and graphics programming techniques.
- Examples - Presents examples using widely-available, commonly-used Microsoft programming technologies tools.
- New Coverage - Teach rendering equation, GPU architecture considerations, and importance-sampling in physically based rendering.
- Full Color - Text and hundreds of figures presented in full color throughout book.

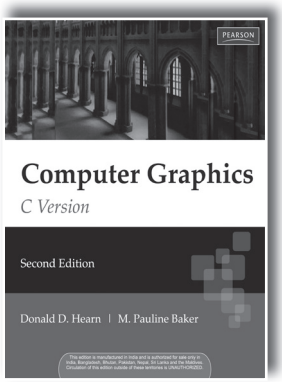
- Programs Written in C++, C#, WPF, or Pseudocode – Whichever language is most effective for given example.
- Instructor Resources - Solutions manual, sample syllabi, and chapterby-chapter PowerPoint presentations.

CONTENTS

1. Introduction
2. Introduction to 2D Graphics Using WPF
3. An Ancient Renderer Made Modern
4. A 2D Graphics Test Bed
5. An Introduction to Human Visual Perception
6. Introduction to Fixed-Function 3D Graphics and Hierarchical Modeling
7. Essential Mathematics and the Geometry of 2-Space and 3-Space
8. A Simple Way to Describe Shape in 2D and 3D
9. Functions on Meshes
10. Transformations in Two Dimensions

ABOUT THE AUTHOR

John F. Hughes is a Professor of Computer Science at Brown University. His primary research is in computer graphics, particularly those aspects of graphics involving substantial mathematics.
Andries van Dam is the Thomas J. Watson, Jr. University Professor of Technology and Education, and Professor of Computer Science at Brown University. Andy's research includes work on computer graphics, hypermedia systems, post-WIMP user interfaces, including immersive virtual reality and pen- and touch-computing, and educational software.
Morgan McGuire is an Associate Professor of Computer Science at Williams College. He's contributed as an industry consultant to products including the Marvel Ultimate Alliance and Titan Quest video game series, the E Ink display used in the Amazon Kindle, and NVIDIA GPUs.
David F. Sklar is a visualization engineer at Vizify.com, working on algorithms for presenting animated infographics on computing devices across a wide range of form factors.
James D. Foley is a professor and holds the Fleming Chair in the College of Computing at Georgia Institute of Technology. He has also held faculty positions at the University of North Carolina at Chapel Hill and The George Washington University, as well as management positions at Mitsubishi Electric Research.
Steven K. Feiner is a Professor of Computer Science at Columbia University, where he directs the Computer Graphics and User Interfaces Lab and co-directs the Columbia Vision and Graphics Center. His research addresses 3D user interfaces, augmented reality, wearable computing, and many topics at the intersection of human-computer interaction and computer graphics.
Kurt Akeley is Chief Technology Officer at Lytro, Inc. Kurt is a cofounder of Silicon Graphics (later SGI), where he led the development of a sequence of high-end graphics systems, including RealityEngine, and also led the design and standardization of the OpenGL graphics system.



ISBN: 9788177587654

Computer Graphics: C Version, 2/e

Donald D Hearn | M. Pauline Baker

660 | © 2006

Web Supplements

ABOUT THE BOOK

Reflecting the rapid expansion of the use of computer graphics and of C as a programming language of choice for implementation, this new version of the best-selling Hearn and Baker text converts all programming code into the C language. Assuming the reader has no prior familiarity with computer graphics, the authors present basic principles for design, use, and understanding of computer graphics systems. The authors are widely considered authorities in computer graphics, and are known for their accessible writing style.

FEATURES

- Discusses current computer graphics hardware and software systems, techniques and applications.
- Explores algorithms for creating and manipulating graphics displays and techniques for implementation.
- Use of programming examples written in C to demonstrate the implementation and application of graphic algorithms.
- Explores GL, PHIGS, PHIGS+, GKS and other graphics libraries.
- Includes thorough coverage of 3-D modeling and rendering.
- Features current topics such as distributed ray tracing, radiosity, physically based modeling, particle systems and visualization techniques.
- Includes appendix with a detailed discussions on a variety of mathematical methods used in graphic algorithms.

CONTENTS

ABOUT THE AUTHOR(S)

Donald D. Hearn, University of Illinois at Urbana-Champaign
M. Pauline Baker, Indiana University-Purdue University Indianapolis

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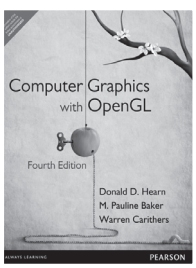
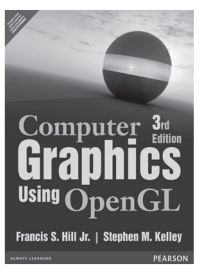


Computer Graphics with OpenGL, 4/e

Hearn / Baker / Carithers

ISBN: 9789332518711
Pages: 820

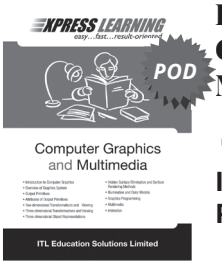
E-Book available



Computer Graphics Using OpenGL 3/e

S. Hill / M. Kelley

ISBN: 9789332555303
Pages: 800

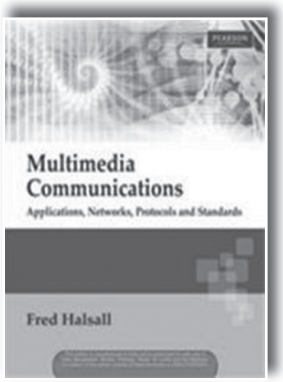


Express learning - Computer Graphics and Multimedia

ITL Education Solutions Limited

ISBN: 9788131785911
Pages: 288

E-Book available



ISBN: 9788131709948

Multimedia Communications : Applications, Networks, Protocols and Standards

Fred Halsall

1056 | © **2001**

Web Supplements

ABOUT THE BOOK

The fast-growing field of multimedia communications involves the use of varied media types (text, images, speech, audio and video) in a wide range of subjects areas. *Multimedia Communications* by **Fred Halsall** addresses all of these subject areas to depth that enables the reader to build up a thorough understanding of the technical issues associated with this rapidly evolving subject. In addition, the book contains all of the foundation material that is necessary to enable it to be used as a textbook in both computer science and electronic engineering departments. The book is also essential reference for computing and networking professionals.

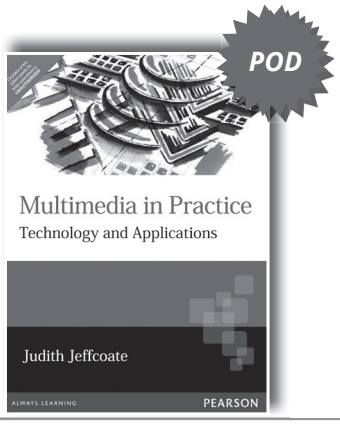
FEATURES

- Embraces all of the main subject areas associated with multimedia communications in a single textbook;
- Extensive use of details diagrams and worked examples as an aid to understanding each major topic;
- End of chapter exercises associated with all topics covered.

CONTENTS

ABOUT THE AUTHOR

Fred Halsall is a Professor of Communications Engineering at the University of Wales, Swansea. Professor Halsall has been involved in research and education in the field of computer networking for the past 30 years.



ISBN: 9788131707159

Multimedia In Practice

Judith Jeffcoate

256 | © **2006**

ABOUT THE BOOK

Designed as a guide for program development managers and project leaders who need to introduce multimedia features into their applications, this comprehensive volume covers the full range of multimedia available, outlines the basic components and technologies, describes a range of possible applications (illustrated with real-world examples), and discusses the impact of multimedia on professionals in the computing industry.

FEATURES

- Factors to be taken into account when planning projects.
- Multimedia related to other key technologies.
- Multimedia Applications identified for a specific sector.
- Comparison of available hardware and software.
- Explanation of new technology and standards.

CONTENTS

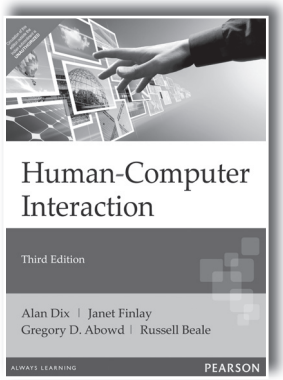
1. Multimedia in use
2. Introducing multimedia: today and tomorrow
3. What is multimedia?
4. Using multimedia: applications, benefits and problems
5. Technology
6. System Components
7. Multimedia platforms
8. Development tools
9. Image
10. Audio
11. Video
12. Storage for multimedia
13. Communications
14. Applications
15. Multimedia in the real world
16. Training and education
17. Kiosks
18. Image processing
19. The multimedia office
20. Multimedia in the home
21. The impact of multimedia
22. Developing applications
23. Multimedia objects
24. Sharing multimedia
25. Multimedia and the law

VIRTUAL REALITY/AUGMENTED REALITY

Augmented Reality: Principles and Practice, 1e

Schmalstieg / Höllerer

ISBN: 9789332578494
Pages: 528



ISBN: 9788131717035

Human-Computer Interaction, 3/e

Alan Dix | Janet E. Finlay | Gregory D. Abowd | Russell Beale

860 | © 2007

ABOUT THE BOOK

The second edition of ***Human-Computer Interaction*** established itself as one of the classic textbooks in the area, with its broad coverage and rigorous approach, this new edition builds on the existing strengths of the book, but giving the text a more student-friendly slant and improving the coverage in certain areas. The revised structure, separating out the introductory and more advanced material will make it easier to use the book on a variety of courses. This new edition now includes chapters on Interaction Design, Universal Access and Rich Interaction, as well as covering the latest developments in ubiquitous computing and Web technologies, making it the ideal text to provide a grounding in HCI theory and practice.

FEATURES

- Strong usable design
- Gives details of HCI in practice
- Comprehensive website at www.hcibook.com
- Covers the latest topics
- Increased coverage of social and contextual models and theories
- New chapters on:
- Interaction Design
- Universal Access
- Rich Interaction

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Foundations

1. Human
2. Computer
3. Interation
4. Paradigms: The History of Interaction

Design Process

5. Interaction Basics
6. HCI in the Software Design Process
7. Design Rules
8. Implementation
9. User Support
10. Evaluation
11. Universal Accessibility

Models And Theories

12. Cognitive Models
13. Socio-organizational Approaches
14. Communication and Collaborative Models
15. Task Models
16. Dialogue Models
17. Formal Models
18. Rich Interaction

Strands

19. Groupware
20. Augmented and Alternative Realities
21. Multimedia, Global Information Systems and the Web

ABOUT THE AUTHOR(S)

Alan Dix, Computing Dept, Lancaster University
Janet E. Finlay, Leeds Metropolitan University
Gregory D. Abowd, Georgia Institute of Technology
Russell Beale, University of Birmingham

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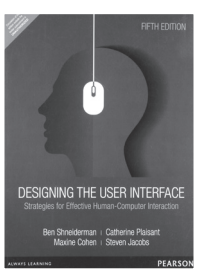
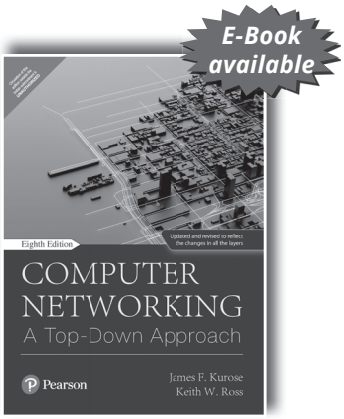


Designing The User Interface: Strategies for Effective Human-Computer Interaction, 5e

Shneiderman / Plaisant

ISBN: 9789332518735
Pages: 572

E-Book available



ISBN: 9789356061316

Computer Networking, 8/e

James Kurose | Keith Ross

820 | © 2022

ABOUT THE BOOK

The 8th Edition of the popular ***Computer Networking: A Top Down Approach*** builds on the authors' long tradition of teaching this complex subject through a layered approach in a "top-down manner." The text works its way from the application layer down toward the physical layer, motivating students by exposing them to important concepts early in their study of networking. Focusing on the Internet and the fundamentally important issues of networking, this text provides an excellent foundation for students in computer science and electrical engineering, without requiring extensive knowledge of programming or mathematics. The 8th Edition has been updated to reflect the most important and exciting recent advances in networking, including software-defined networking (SDN) and the rapid adoption of 4G/5G networks and the mobile applications they enable.

FEATURES

- A balanced presentation focuses on the Internet as a specific motivating example of a network and also introduces students to protocols in a more theoretical context.
- UPDATED - Expanded and significantly updated coverage reflects the swift rise in importance of software-defined networking (SDN) and the rapid adoption of 4G/5G networks and the mobile applications they enable — arguably the most important and exciting advances in networking in decades.
- Principles and Practice boxes throughout demonstrate real-world applications of the principles studied.
- Case History boxes help tell the story of the history and development of computer networking.
- Material on application programming development is included, along with numerous programming assignments.

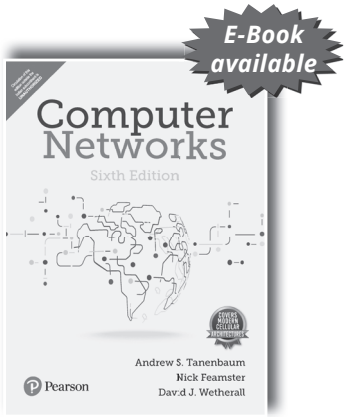
CONTENTS

1. Computer Networks and the Internet
2. Application Layer
3. Transport Layer
4. The Network Layer: Data Plane
5. The Network Layer: Control Plane
6. The Link Layer and LANs
7. Wireless and Mobile Networks
8. Security in Computer Networks

ABOUT THE AUTHOR

James Kurose is a Distinguished University Professor in the College of Information and Computer Sciences at the University of Massachusetts Amherst, where he has been on the faculty since receiving his PhD in computer science from Columbia University.

Keith Ross is the Dean of Engineering and Computer Science at NYU Shanghai and the Leonard J. Shustek Chair Professor in the Computer Science and Engineering Department at NYU. Previously he was at University of Pennsylvania (13 years), Eurecom Institute (5 years) and NYU-Poly (10 years).



ISBN: 9789356063600

Computer Networks, 6/e

Andrew S. Tanenbaum | David J. Wetherall | Nick Feamster

944 | © 2022

ABOUT THE BOOK

In ***Computer Networks,*** Tanenbaum et al. explain how networks work from the inside out. They start with the physical layer of networking, computer hardware and transmission systems, then work their way up to network applications. Each chapter follows a consistent approach: The book presents key principles, then illustrates them utilizing real-world example networks that run through the entire book – the Internet, and wireless networks, including Wireless LANs, broadband wireless, and Bluetooth. The 6th Edition is updated throughout to reflect the most current technologies, and the chapter on network security is rewritten to focus on modern security principles and actions.

FEATURES

- NEW - Coverage of modern cellular architectures includes 4G and 5G networks to reflect the most current technology.
- NEW - Ethernet and wireless networks material, specifically 40- and 100-gigabit Ethernet, 802.11.ac, 802.11ad, and 802.11ax, have been added.
- NEW - Emerging technology discussions cover topicssuch as virtualization and SDN.
- UPDATED - Audio and video streaming technology discussions include MPEG-DASH.
- UPDATED - Additional readings suggested to expand students' understanding.

CONTENTS

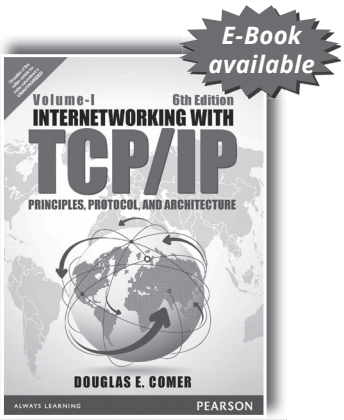
1. Introduction
2. The Physical Layer
3. The Data Link Layer
4. The Medium Access Control Sublayer
5. The Network Layer
6. The Transport Layer
7. The Application Layer
8. Security

ABOUT THE AUTHOR

Andrew S. Tanenbaum is a Professor of Computer Science at Vrije Universiteteit, Amsterdam, the Netherlands. He is a fellow of IEEE and ACM and a member of the Netherlands Royal Academy of Arts and Sciences.

David J. Wetherall is a Professor of Computer Science and Engineering at the University of Washington in Seattle. He hails from Australia and has worked in the area of networking for the past two decades. His research is focused on Internet protocols, wireless networks, and security.

Nick Feamster is Neubauer Professor of Computer Science and the Director of Center for Data and Computing (CDAC) at the University of Chicago. His research focuses on many aspects of computer networking and networked systems, with a focus on network operations, network security, and censorship-resistant communication systems.



ISBN: 9789332550100

Internetworking with TCP/IP Volume I, 6/e

Douglas E. Comer

744 | © **2015**

ABOUT THE BOOK

An internationally best-selling, conceptual introduction to the TCP/IP protocols and Internetworking, this book interweaves a clear discussion of fundamentals and scientific principles with details and examples drawn from the latest technologies. Leading author Douglas Comer covers layering and packet formats for all the Internet protocols, including TCP, IPv4, IPv6, DHCP, and DNS. In addition, the text explains new trends in Internet systems, including packet classification, Software Defined Networking (SDN), and mesh protocols used in The Internet of Things.

FEATURES

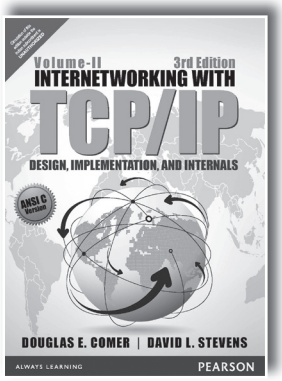
- Voice and Video Over IP (RTP)–Examines the RTP protocol that allows a receiver to coordinate and play real-time data such as voice and video as well as the RSVP and COPS protocols that can be used to provide resource information.
- IP coverage–Up-to-date discussions of Internet Security and Firewalls, Design with IPSEC, the latest IPv6 features, and IP Routing.
- Discussion of routing architectures–Elaborates on the routing architectures used for large and small Internets.
- Examination of Internet application services–Provides students with information on services such as domain name system (DNS), electronic mail (SMTP, MIME), file transfer and access (FTP, TFTP, NFS), remote login (TELNET, rlogin), and network management (SNMP, MIB, ANS.I).
- Mobile IP–Describes the technology that allows a computer to move from one network to another without changing its IP address.
- Private Network Interconnection (NAT, VPN)–Teaches students about two key technologies used to interconnect private intranets and the global Internet.

CONTENTS

ABOUT THE AUTHOR

Douglas Comer, Distinguished Professor of Computer Science at Purdue University and former VP of Research at Cisco, is an internationally recognized expert on computer networking, the TCP/IP protocols, and the Internet. The author of numerous refereed articles and technical books, he is a pioneer in the development of curriculum and laboratories for research and education.

Internetworking with TCP/IP Vol. II: ANSI C Version: Design, Implementation, and Internals, 3/e



ISBN: 9789332550261

Douglas E. Comer

660 | © **2015**

ABOUT THE BOOK

The Third Edition of this best-seller is a must for anyone working the TCP/IP suite of protocols.

The authors provide an in-depth look at individual TCP/IP protocols in light of design alternatives, implementation techniques with actual ANSI C code, and the internals of protocol software. This book uses the widely accepted data-mark interpretation of TCP urgent data, and a discussion of the consequences is included. Throughout the book the authors use a working system–which they designed and built using ANSI C–to explain the interaction among protocols, the complete implementation process, and the internal structure.

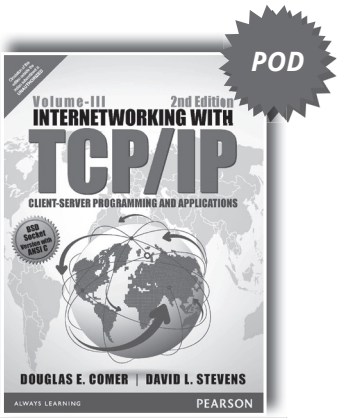
FEATURES

- Reflects changes in the protocol standards and updates the example code to ANSI standard C.
- Contains working source code in ANSI C for most protocols including TCP, IP, ICMP, IGMP, UDP, ARP, RIP, SNMP, and a significant part of OSPF.
- Defines data structures, constants, and code for procedures and processes in ANSI standard C.
- Provides active experimentation with a working TCP/IP implementation.
- Implementation support for the IGMP protocol used for IP multicasting and multicast OSPF routing protocol used in applications such as audio and video multicast.
- Unique coverage of the Open Shortest path First link-state routing protocol designed by the IETF.
- Shows the latest interpretation of the urgent data processing.

CONTENTS

ABOUT THE AUTHOR

Douglas Comer, Distinguished Professor of Computer Science at Purdue University and former VP of Research at Cisco, is an internationally recognized expert on computer networking, the TCP/IP protocols, and the Internet. The author of numerous refereed articles and technical books, he is a pioneer in the development of curriculum and laboratories for research and education.



ISBN: 9789332549876

Internetworking with TCP/IP Vol. III: Client-Server Programming and ApplicationsBSD Socket Version, 2/e

Douglas E. Comer | David L. Stevens

552 | © 2015

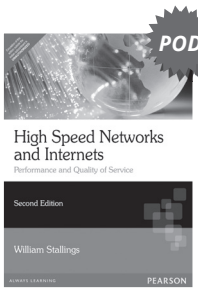
ABOUT THE BOOK

This is the Second Edition of Vol. III BSD Socket Version from one of the most popular TCP/IP Internetworking series ever published. This new edition includes code in ANSI C throughout. This is the only book available who's central theme is software design that teaches designers how to structure clients and servers. The server designs are directly applicable to WWW and other applications. The authors present the most complete coverage of server technology that allows designers to understand the costs and benefits of advanced server technologies. In addition, the Second Edition discusses the use of application gateways to allow client-server communication across heterogeneous protocols.

FEATURES

- This is a revised version of this volume. Changes in this edition include: Code has been updated to use ANSI C and the UNIX operating systems (POSIX). Covers SLIP connections (a popular program that allows TCP/IP access to the Internet over dial-up phone systems. Latest changes in Network File System protocol (NFS3).
- This edition focuses on the BSD version of UNIX. This volume answers the question "How does one use TCP/IP?"– focusing on the client-server paradigm, and examining algorithms for both the client and server components of a distributed program.
- KEY TOPICS: Describes the AT&T TLI interface and uses it in all examples. The principles underlying distributed programs and all server designs are emphasized. Thoroughly covers the many ways to design interactive and concurrent client and server software, as well as their proper use and application. Concepts apply to Client-Server programs in general; not just TCP/IP.
- MARKET: Any communications professional who wants to put TCP/IP to use. This is everyone working on Internet communications.

➦ ALSO AVAILABLE...

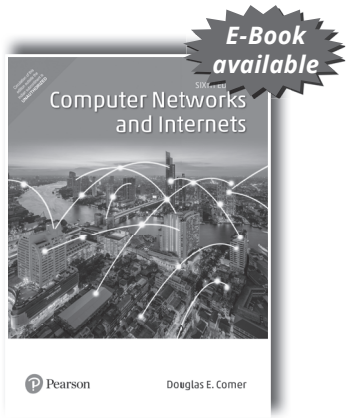


High Speed Networks and Internets, 2/e

William Stallings

ISBN: 9788177585698
Pages: 744

Web Supplements



ISBN: 9789352869152

Computer Networks and Internets, 6/e

Douglas E. Comer

672 | © 2018

ABOUT THE BOOK

Appropriate for all introductory-to-intermediate courses in computer networking, the Internet, or Internet applications; students need no background in networking, operating systems, or advanced mathematics.

Leading networking authority Douglas Comer presents a wide-ranging, self-contained tour of the concepts, principles, and technologies that enable today's Internet to support applications ranging from web browsing to telephony and multimedia. Comer begins by illuminating the applications and facilities offered by today's Internet. Next, he systematically introduces the underlying network technologies and protocols that make them possible. With these concepts and technologies established, he introduces several of the most important contemporary issues faced by network implementers and managers, including quality of service, Internet telephony, multimedia, network security, and network management.

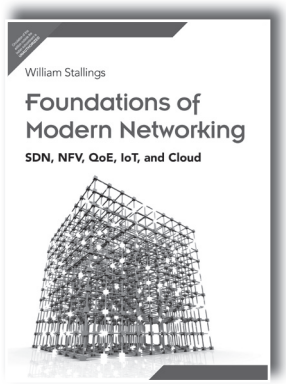
FEATURES

- Broad Coverage of Key Concepts and Principles, Presented in a Technology-independent Fashion
- Every chapter includes hands-on exercises and projects that offer opportunities for students to test their knowledge and gain confidence in their abilities.
- Flexible Organization that Supports both Top-down and Bottom-up Teaching Approaches
- The text is organized into five parts. Chapters may be sequenced in multiple orders to accommodate a wide variety of instructor/student/course needs and preferences.
- No sophisticated mathematics is required—instead of formal mathematical proofs, Comer presents highly accessible examples, figures, drawings, and analogies.
- The text answers the basic question: how do computer networks and Internets operate? It provides a comprehensive, self-contained tour through all of networking that describes applications, Internet protocols, network technologies, such as LANs and WANs, and low-level details, such as data transmission and wiring. It shows how protocols use the underlying hardware and how applications use the protocol stack to provide functionality for users.

CONTENTS

ABOUT THE AUTHOR

Douglas Comer, Distinguished Professor of Computer Science at Purdue University and former VP of Research at Cisco, is an internationally recognized expert on computer networking, the TCP/IP protocols, and the Internet. The author of numerous refereed articles and technical books, he is a pioneer in the development of curriculum and laboratories for research and education.



ISBN: 9789332573864

Foundations of Modern Networking: SDN, NFV, QoE, IoT, and Cloud

William Stallings

568 | © **2016**

ABOUT THE BOOK

SDN, NFV, and QoE: Foundations of Modern Networking is a comprehensive and unified survey of modern networking technology and applications for today's technical professionals, business professionals, and students. Using the same teaching approach that has earned him 13 "Computer Science Textbook of the Year" Awards, Dr. Stallings imparts a thorough understanding of SDN technology: how it works, how it is deployed, and how enterprises of all sizes can use it to deliver superior Quality of Service (QoS) and Quality of Experience (QoE).

FEATURES

- The most comprehensive, authoritative guide to SDN, QoS/QoE, and related technologies: components, interactions, standards, deployment, migration, usage, management, and more
- Thoroughly introduces Quality of Experience (QoE): how enterprises are extending QoS to fully tailor their network services and performance around emerging customer needs
- Contains extensive new application coverage–from OTT and IPTV to cloud computing/services, Big Data, mobile, and Internet of Things
- Includes detailed coverage of security, virtualization, OpenFlow, and many other key issues
- Discusses the career implications of the shift to SDNs and the cloud: changing jobs, skills, and educational priorities

CONTENTS

ABOUT THE AUTHOR

Dr. William Stallings has made a unique contribution to understanding the broad sweep of technical developments in computer security, computer networking, and computer architecture. He has authored 18 textbooks, and, counting revised editions, a total of 70 books on various aspects of these subjects. His writings have appeared in numerous ACM and IEEE publications, including the Proceedings of the IEEE and ACM Computing Reviews.

ISBN: 9789332586932

Data and Computer Communications, 10/e

William Stallings

912 | © **2018**

ABOUT THE BOOK

With a focus on the most current technology and a convenient modular format, this best-selling text from Pearson offers a clear and comprehensive survey of the entire data and computer communications field. Emphasizing both the fundamental principles as well as the critical role of performance in driving protocol and network design, it explores all the critical technical areas in data communications, wide-area networking, local area networking, and protocol design in detail."

FEATURES

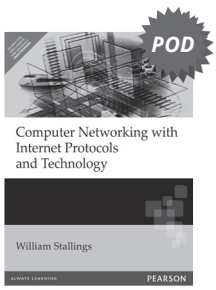
- A modular format–This structure breaks this massive subject into comprehensible parts, thus making learning easier for students.
- Unifying principles–The text repeatedly emphasizes such principles as multiplexing, flow control, and error control, and contrasts their application in specific areas of technology. This enables students to understand how the same protocol design principles are applied at different levels of the protocol architecture.
- Standards–A comprehensive discussion of the current status and future direction of related technology standards helps students understand the central role of standards in network and protocol design.
- More than 250 homework problems–Problems ranging in difficulty give students the opportunity to test their comprehension of concepts.
- Strong pedagogical support–The liberal use of figures and tables; glossary; recommended reading list and Websites; and a bibliography provide students with convenient study tools.

CONTENTS

ABOUT THE AUTHOR

Dr. William Stallings has made a unique contribution to understanding the broad sweep of technical developments in computer security, computer networking, and computer architecture. He has authored 18 textbooks, and, counting revised editions, a total of 70 books on various aspects of these subjects. His writings have appeared in numerous ACM and IEEE publications, including the Proceedings of the IEEE and ACM Computing Reviews.

➦ **ALSO AVAILABLE...**

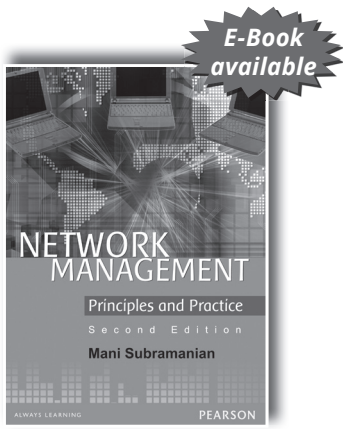


Computer Networking with Internet Protocols

William Stallings

ISBN: 9788131709351
Pages: 662

Web Supplements



ISBN: 9788131727591

Network Management: Principles and Practice, 2/e

Mani Subramanian

724 | © 2010

Web Supplements

ABOUT THE BOOK

This edition is thoroughly updated and expanded to address broadband network management and the latest trends in the network management technology and standards. The author's unique approach thoroughly illustrates the theoretical and practical aspects of network management, and the technologies and the tools that academics and network managers simply must know.

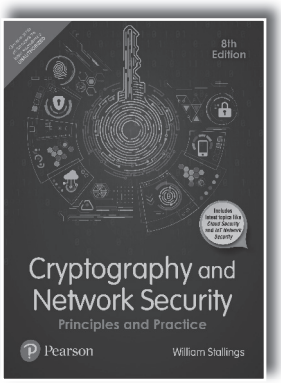
FEATURES

- Network management extended to telecommunications management
- Maps the concept of eTOM with TMN
- Extensive treatment on the design of an NMS with practical perspective
- Focuses on management of wired, fixed wireless and mobile broadband access, and home networks including evolving management protocols and MIBs
- Elucidates management of Optical and MPLS networks widely deployed in the telecommunications network
- Web, CORBA, and XML-based technologies addressed along with NGOSS technology

CONTENTS

ABOUT THE AUTHOR

Mani Subramanian has over forty years of telecommunications experience in academic, research, and corporate institutions. Mani is currently an Adjunct Professor at Georgia Institute of Technology and an Adjunct Professor at Indian Institute of Technology Madras.



ISBN: 9789357059718

Cryptography and Network Security, 8/e

William Stallings

852 | © 2023

ABOUT THE BOOK

Cryptography and Network Security: Principles and Practice introduces students to the compelling and evolving field of cryptography and network security. In an age of viruses and hackers, electronic eavesdropping, and electronic fraud on a global scale, security is paramount. The purpose of this book is to provide a practical survey of both the principles and practice of cryptography and network security. The first part of the book explores the basic issues to be addressed by a network security capability and provides a tutorial and survey of cryptography and network security technology. The latter part of the book deals with the practice of network security, covering practical applications that have been implemented and are in use to provide network security. The 8th Edition captures innovations and improvements in cryptography and network security, while maintaining broad and comprehensive coverage of the entire field. In many places, the narrative has been clarified and tightened, and illustrations have been improved based on extensive reviews by professors who teach the subject and by professionals working in the field.

FEATURES

- Chapter 1 includes a new section describing trust and trustworthiness–two key concepts in computer and network security.
- New and Expanded: Coverage of Cloud security; IoT network security; and treatment of stream ciphers to keep pace with their growing importance.
- Two new sections cover:
  - Rapidly emerging topic of lightweight cryptography in response to the Internet of Things and other small embedded systems that require new approaches to cryptography to accommodate the low power requirements, minimum memory, and limited processing power of IoT devices.
  - Post-quantum cryptography in anticipation of the potential threat posed by quantum computers based on considerable research and development of cryptographic algorithms that are resistant to the threat.

CONTENT

1. Computer and Network Security Concepts
2. Introduction to Number Theory
3. Classical Encryption Techniques
4. Block Ciphers and the Data Encryption Standard
5. Finite Fields
6. Advanced Encryption Standard
7. Block Cipher Operation
8. Random Bit Generation and Stream Ciphers
9. Public-Key Cryptography and RSA
10. Other Public-Key Cryptosystems
11. Cryptographic Hash Functions
12. Message Authentication Codes
13. Digital Signatures
14. Lightweight Cryptography and Post-Quantum Cryptography
15. Key Management and Distribution
16. User Authentication Protocols
17. Transport-Level Security
18. Wireless Network Security
19. Electronic Mail Security
20. IP Security
21. Network Endpoint Security
22. Cloud Security
23. Internet of Things (IoT) Security

ABOUT THE AUTHOR

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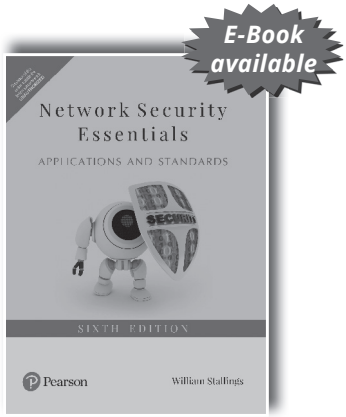


ISBN: 9789352866601

Network Security Essentials: Applications & Standards, 6/e

William Stallings

472 | © **2018**

ABOUT THE BOOK

Network Securities Essentials: Applications and Standards introduces students to the critical importance of internet security in our age of universal electronic connectivity. Amidst viruses, hackers, and electronic fraud, organizations and individuals are constantly at risk of having their private information compromised. This creates a heightened need to protect data and resources from disclosure, guarantee their authenticity, and safeguard systems from network-based attacks.

The Sixth Edition covers the expanding developments in the cryptography and network security disciplines, giving students a practical survey of applications and standards. The text places emphasis on applications widely used for Internet and corporate networks, as well as extensively deployed internet standards.

FEATURES

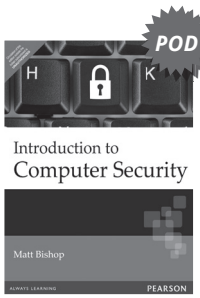
- UPDATED! The text includes the most recent innovations in a comprehensive coverage of the field.
- UPDATED! Professors in the field have reviewed this book since the last edition to clarify and tighten the narrative and improve illustrations.
- NEW! Chapter on network access control includes a general overview of the topic plus discussions of the Extensive Authentication Protocol and IEEE 802.1X.
- NEW! Section on cloud security covers the security issues related to cloud computing.
- NEW! Online chapter on SHA-3 discusses the new cryptographic hash standard, which was adopted in 2012.
- NEW! Section on mobile device security introduces this essential aspect of enterprise network security.
- UPDATED! Chapter on malicious software now focuses on backdoor/rootkit malware more commonly installed by social engineering attacks, rather than more classic direct infections like viruses and worms.
- NEW! Sample Syllabi guide instructors in using the text for a limited amount of time.
- NEW! Learning Objectives begin each chapter.

CONTENT

ABOUT THE AUTHOR

William Stallings has made a unique contribution to understanding the broad sweep of technical developments in computer networking and computer architecture. He has authored 18 titles, and counting revised editions, a total of 35 books on various aspects of these subjects. Currently he is an independent consultant whose clients have included computer and networking manufacturers and customers, software development firms, and leading-edge government research institutions.He has six times received the prize for best Computer Science and Engineering textbook of the year from the Textbook and Academic Authors Association.

➦ ALSO AVAILABLE...



POD

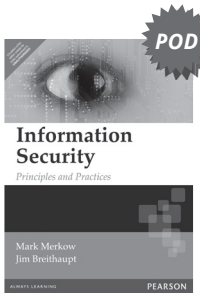
Introduction to Computer Security

Matt Bishop

ISBN: 9788177584257
Pages: 616

E-Book available

Web Supplements



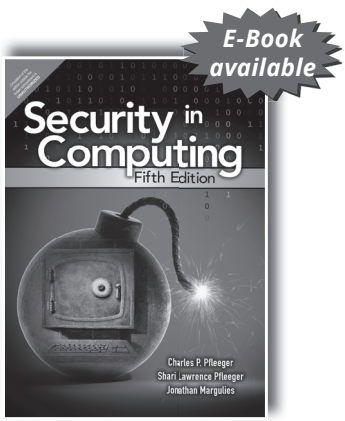
POD

Information Security: Principles and Practices

Mark Merkow / Jim Breithaupt

ISBN: 9788131712887
Pages: 275

Web Supplements



ISBN: 9789352866533

Security in Computing, 5/e

Charles P. Pfleeger | Shari Lawrence Pfleeger | Jonathan Margulies

944 | © 2018

ABOUT THE BOOK

This book offers complete coverage of all aspects of computer security, including users, software, devices, operating systems, networks, law, and ethics. Reflecting rapidly evolving attacks, countermeasures, and computing environments, it introduces up-to-the-minute best practices for authenticating users, preventing malicious code execution, using encryption, protecting privacy, implementing firewalls, detecting intrusions, and more.

FEATURES

- This classic text has been thoroughly updated to reflect today's newest technologies, standards, and trends
- Topics progress from simple and straightforward to complex and intricate
- Easy-to-read descriptions of concepts and incidents
- As of Oct, 2015, there are new, vastly improved PowerPoint slides for instructor use

CONTENTS

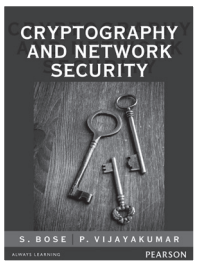
ABOUT THE AUTHOR(S)

Charles Pfleeger is an internationally known expert on computer and communications security. He was originally a professor at the University of Tennessee, leaving there to join computer security research and consulting companies Trusted Information Systems and Arca Systems (later Exodus Communications and Cable and Wireless). With Trusted Information Systems he was Director of European Operations and Senior Consultant. With Cable and Wireless he was Director of Research and a member of the staff of the Chief Security Officer. He was chair of the IEEE Computer Society Technical Committee on Security and Privacy.

Shari Lawrence Pfleeger is widely known as a software engineering and computer security researcher, most recently as a Senior Computer Scientist with the Rand Corporation and as Research Director of the Institute for Information Infrastructure Protection. She is currently Editor in Chief of IEEE Security & Privacy magazine.

Jonathan Margulies is the CTO of Qmulos, a cybersecurity consulting firm. After receiving his Masters Degree in Computer Science from Cornell University, Mr. Margulies spent nine years at Sandia National Labs, researching and developing solutions to protect national security and critical infrastructure systems from advanced persistent threats. He then went on to NIST's National Cybersecurity Center of Excellence, where he worked with a variety of critical infrastructure companies to create industry-standard security architectures. In his free time, Mr. Margulies edits the "Building Security In" section of IEEE Security & Privacy magazine.

➦ **ALSO AVAILABLE...**

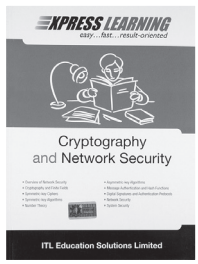


Cryptography and Network Security

S. Bose / P. Vijayakumar

ISBN: 9789332543645
Pages: 544

E-Book available

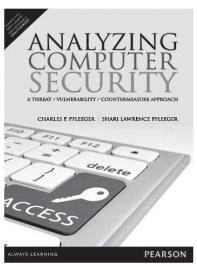


Express Learning- Cryptography and Network Security

ITL Education Solutions Limited

ISBN: 9788131764527
Pages: 196

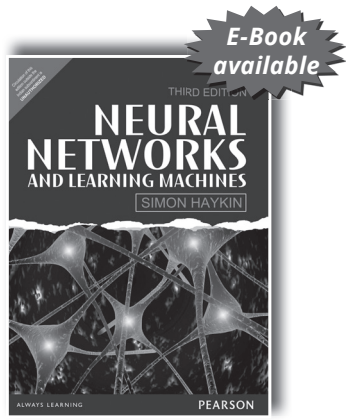
E-Book available



Analyzing Computer Security

P. Pfleeger / Lawrence Pfleeger

ISBN: 9789332517424
Pages: 848



ISBN: 9789332570313

Neural Networks and Learning Machines, 3/e

Simon Haykin

944 | © **2016**

ABOUT THE BOOK

Refocused, revised and renamed to reflect the duality of neural networks and learning machines, this edition recognizes that the subject matter is richer when these topics are studied together. Ideas drawn from neural networks and machine learning are hybridized to perform improved learning tasks beyond the capability of either independently.

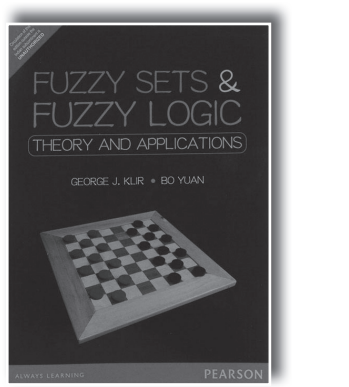
FEATURES

- Extensive, state-of-the-art coverage exposes students to the many facets of neural networks and helps them appreciate the technology's capabilities and potential applications.
- Reinforces key concepts with chapter objectives, problems, worked examples, a bibliography, photographs, illustrations, and a thorough glossary.
- Integrates computer experiments throughout, giving students the opportunity to see how neural networks are designed and perform in practice.

CONTENTS

ABOUT THE AUTHOR

Simon O. Haykin, McMaster University, Ontario Canada



ISBN: 9789332549425

Fuzzy Sets and Fuzzy Logic: Theory and Applications, 2/e

George J. Klir | Bo Yuan

592 | © **2015**

ABOUT THE BOOK

Reflecting the tremendous advances that have taken place in the study of fuzzy set theory and fuzzy logic from 1988 to the present, this book not only details the theoretical advances in these areas, but considers a broad variety of applications of fuzzy sets and fuzzy logic as well.

FEATURES

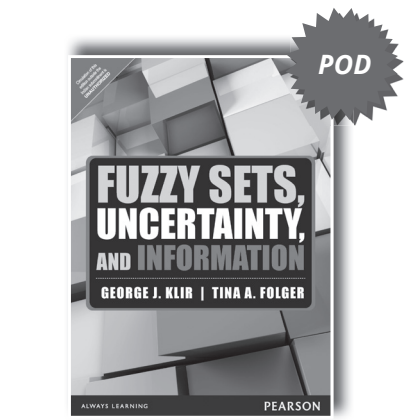
- Details the advances that have taken place in fuzzy set theory and fuzzy logic in recent years.
- Requires only a basic knowledge of classical (nonfuzzy) set theory, classical (two-valued) logic, and probability theory.

- Includes all bibliographical, historical, and other side remarks in the notes that follow each individual chapter.
- Includes a set of exercises after each chapter.
- Offers an overview of neural networks, genetic algorithms, and rough sets in Appendices A-C.
- Includes a glossary of key concepts and a glossary of symbols.

CONTENTS

ABOUT THE AUTHOR(S)

George J. Klir, State University of New York, Binghamton
Bo Yuan, Las Vegas, New Mexico



ISBN: 9789332550001

Fuzzy Sets, Uncertainty, and Information

George J Klir | Tina A. Folger

368 | © 2015

ABOUT THE BOOK

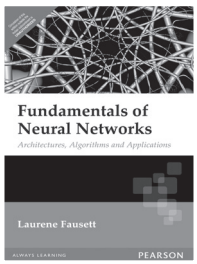
The concept of uncertainty and its relationship to the increasingly important concept of information and complexity need to be brought under a new mathematical formulation.

This book is intended to make an understanding of this mathematical formalism accessible to students and professionals in a broad range of disciplines and covers the various issues of uncertainty, information and complexity from a broad perspective based on formalism of fuzzy set theory. No prior knowledge of fuzzy set theory or information theory is required; the reader is however assumed to be familiar with basic notions of set theory, logic and probability theory, though the fundamentals of these subject areas are briefly over viewed in the book.

The book is suitable as a text at the advanced under-graduate/postgraduate level that covers uncertainty, information and complexity from a broad perspective in mathematics courses in artificial intelligence, engineering and computer science.

CONTENTS

➦ **ALSO AVAILABLE...**



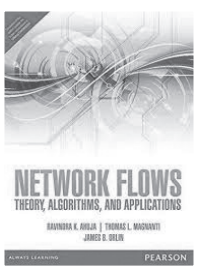
Fundamentals of Neural Networks: Architectures, Algorithms and Applications

Laurene Fausett

ISBN: 9788131700532
Pages: 480

Web Supplements

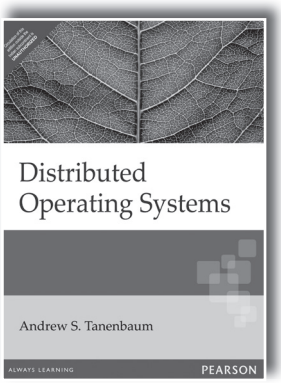
NETWORK PROGRAMMING



Network Flows: Theory, Algorithms, and Applications

Ahuja / Magnanti / Orlin

ISBN: 9789332535152
Pages: 864



ISBN: 9788177581799

Distributed Operating Systems

Andrew S. Tanenbaum

608 | © **2005**

ABOUT THE BOOK

As distributed computer systems become more pervasive, so does the need for understanding how their operating systems are designed and implemented. Andrew S. Tanenbaums ***Distributed Operating Systems*** fulfills this need. Representing a revised and greatly expanded Part II of the best-selling Modern Operating Systems, it covers the material from the original book, including communication, synchronization, processes, and file systems, and adds new material on distributed shared memory, real-time distributed systems, fault-tolerant distributed systems, and ATM networks. It also contains four detailed case studies: Amoeba, Mach, Chorus, and OSF/DCE. Tanenbaums trademark writing provides readers with a thorough, concise treatment of distributed systems.

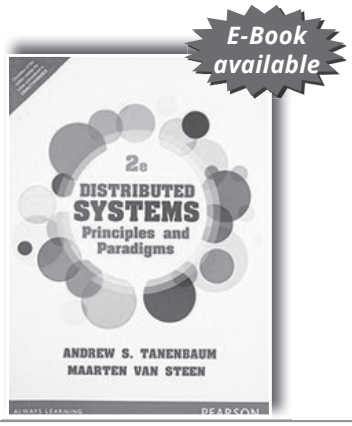
FEATURES

- Offers the most up-to-date coverage of emerging techniques and technology, including the only coverage of Distributed Shared Memory available to date
- Provides four detailed case studies of actual distributed systems, including:
  - Amoeba
  - Mach
  - Chorus
  - DCE
- Supports narrative with a strong pedagogical framework, including:
  - Over 250 figures
  - Over 200 references
  - Suggested readings
  - Nearly 200 problems
- New material on distributed real-time systems
- New material on ATM
- New material on fault-tolerance

CONTENTS

ABOUT THE AUTHOR

Andrew S. Tanenbaum has a B.S. Degree from M.I.T. and a Ph.D. from the University of California at Berkeley. He is currently a Professor of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands, where he heads the Computer Systems Group. He is also Dean of the Advanced School for Computing and Imaging, an interuniversity graduate school doing research on advanced parallel, distributed, and imaging systems. Nevertheless, he is trying very hard to avoid turning into a bureaucrat



ISBN: 9789332549807

Distributed Systems: Principles and Paradigms, 2/e

Andrew S. Tanenbaum

704 | © **2015**

ABOUT THE BOOK

Very few textbooks today explore distributed systems in a manner appropriate for university students. In this unique text, esteemed authors Tanenbaum and van Steen provide full coverage of the field in a systematic way that can be readily used for teaching. No other text examines the underlying principles - and their applications to a wide variety of practical distributed systems - with this level of depth and clarity.

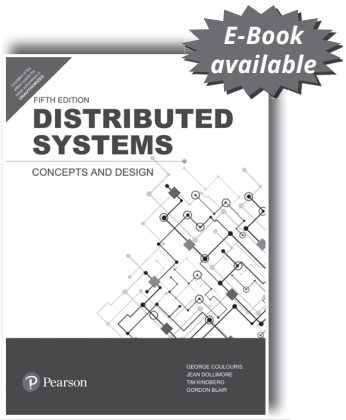
FEATURES

- First part of the book dedicates one chapter to each of seven key principles of all distributed systems: communication, processes, naming, synchronization, consistency and replication, fault tolerance, and security.
- Second part of the book devoted to real-world distributed case studies:
- Numerous end-of-chapter exercises - Explain how the various principles of distributed systems work in practice.
- "Big picture" concepts and many technical details:
- Excellent coverage of timely, advanced distributed systems topics - Examines security, payment systems, recent Internet and Web protocols, scalability, and caching and replication.

CONTENTS

ABOUT THE AUTHOR

Andrew S. Tanenbaum has a B.S. Degree from M.I.T. and a Ph.D. from the University of California at Berkeley. He is currently a Professor of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands, where he heads the Computer Systems Group. He is also Dean of the Advanced School for Computing and Imaging, an interuniversity graduate school doing research on advanced parallel, distributed, and imaging systems. Nevertheless, he is trying very hard to avoid turning into a bureaucrat.



ISBN: 9789332575226

Distributed Systems, 5/e

George Coulouris | **Jean Dollimore** | **Tim Kindberg** | **Gordon Blair**

1,064 | © **2017**

ABOUT THE BOOK

Distributed Systems equips computer science engineering students with the skills they need to design and maintain software for distributed applications. It is also an invaluable resource for software engineers and systems designers who wish to explore new developments in the field.

Using a wealth of modern case studies, the fifth edition of this best-selling text by Pearson continues its focus on the principles and practice of distributed computer systems. The depth of coverage will enable students to evaluate existing distributed systems and design new ones.

FEATURES

- Provides an understanding of the principles on which the Internet and other distributed systems are based, their architecture, algorithms and design and how they meet the demands of contemporary distributed applications
- Broad and up-to-date coverage of the principles and practice in the fast moving area of Distributed Systems
- Includes the key issues in the debate between components and web services as the way forward for the industry
- The depth of coverage will enable students to evaluate existing distributed systems and design new ones
- Incorporates and anticipates the major developments in distributed systems technology
- Case studies illustrate the design concepts for each major topic

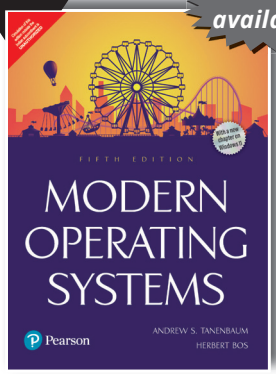
CONTENTS

ABOUT THE AUTHOR(S)

George Coulouris, Cambridge University
Jean Dollimore, Formerly of Queen Mary, University of London
Tim Kindberg, matter 2 media
Gordon Blair, Lancaster University

NEW

E-Book available



ISBN: 9789361595134

Modern Operating Systems, 5/e

Andrew S. Tanenbaum | Herbert Bos

1184 | © 2024

ABOUT THE BOOK

Modern Operating Systems incorporates the latest developments and technologies in the field of operating systems (OS). Author Andy Tanenbaum's clear and entertaining writing style outlines the concepts every OS designer needs to master. In-depth topic coverage includes processes, threads, memory management, file systems, I/O, deadlocks, interface design, multimedia, performance tradeoffs, and trends in OS design. Case studies explore popular OS and provide real-world context. This book also provides information on current research based on author's experience as an operating systems researcher. The 5th Edition keeps pace with modern OS with a new chapter on Windows 11.

FEATURES

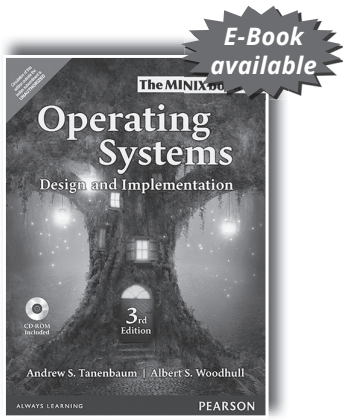
- In-depth topic coverage includes processes, threads, memory management, file systems, I/O, deadlocks, interface design, multimedia, performance tradeoffs, and the newest trends in operating systems (OS) design. Multimedia file systems are covered in detail, an important topic that most books miss. Thorough treatment of computer security includes viruses, worms, malware and other digital pests. Practical guidance is also provided on ways to combat and defend against security threats. Full-chapter case studies explore current OS in real-world detail. A clear and entertaining writing style outlines the big-picture concepts every OS designer needs to master.

CONTENTS

ABOUT THE AUTHOR

Andrew S. Tanenbaum has an S.B. degree from M.I.T. and a Ph.D. from the University of California at Berkeley. He is currently a Professor Emeritus of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands. He was formerly Dean of the Advanced School for Computing and Imaging, an interuniversity graduate school doing research on advanced parallel, distributed, and imaging systems. He also won a prestigious European Research Council Advanced Grant. In the past, he has done research on compilers, operating systems, networking, local-area distributed systems and distributed systems. This research has led to over 200 refereed publications in journals and conferences. Prof. Tanenbaum has also authored or co-authored 5 books, which have been translated into over 20 languages, ranging from Basque to Thai. They are used at universities all over the world. There are 163 versions of his books. Prof. Tanenbaum has also produced a considerable volume of software, notably MINIX, a small UNIX clone. It was the direct inspiration for Linux and the platform on which Linux was initially developed. The current version of MINIX, called MINIX 3, is now focused on being an extremely reliable and secure operating system.

Herbert Bos obtained his Master's degree from Twente University and his Ph.D. from Cambridge University in the United Kingdom. Since then, he has worked extensively on dependable and efficient I/O architectures for operating systems like Linux, but also research systems based on MINIX 3. He is currently a professor at the VUSec Systems Security and Research Group in the department of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands. With his group, he discovered and analysed many vulnerabilities in both hardware and software. From buggy memory chips to vulnerable CPUs, and from flaws in operating systems to novel exploitation techniques, the research has led to fixes in most major operating systems, most popular browsers, and all modern Intel processors.



ISBN: 9789332550513

Operating Systems: Design and Implementation, 3/e

Andrew S. Tanenbaum

1,080 | © **2015**

ABOUT THE BOOK

Revised to address the latest version of MINIX (MINIX 3), this streamlined, simplified new edition remains the only operating systems text to first explain relevant principles, then demonstrate their applications using a Unix-like operating system as a detailed example. It has been especially designed for high reliability, for use in embedded systems, and for ease of teaching.

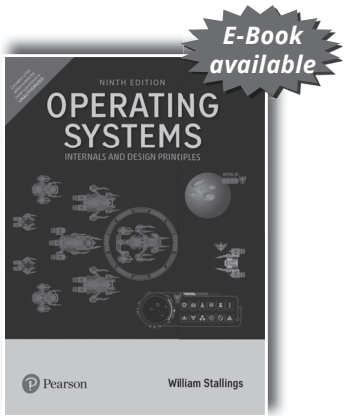
FEATURES

- Accompanying CD-ROM with the latest version of MINIX and simulators for running MINIX on other systems - A small, easy-to-understand highly reliable operating system is available for study; unique to this text.
- Relevant sections of MINIX code are described in detail in most chapters - Provides problems at the end of each chapter, with separate solutions manual for the instructor.
- Simulators for running MINIX on other systems are available.
- MINIX includes networking based in TCP/IP - the full source code of the MINIX TCP/IP implementation is included on the CD-ROM.

CONTENTS

ABOUT THE AUTHOR

Andrew S. Tanenbaum has a B.S. Degree from M.I.T. and a Ph.D. from the University of California at Berkeley. He is currently a Professor of Computer Science at the Vrije Universiteit in Amsterdam, The Netherlands, where he heads the Computer Systems Group. He is also Dean of the Advanced School for Computing and Imaging, an interuniversity graduate school doing research on advanced parallel, distributed, and imaging systems.



ISBN: 9789352866717

Operating Systems: Internals and Design Principles, 9/e

William Stallings

800 | © **2018**

ABOUT THE BOOK

Now in its 9th Edition, ***Operating Systems: Internals and Design Principles*** provides a comprehensive, unified introduction to operating systems topics aimed at computer science, computer engineering, and electrical engineering majors. Author William Stallings emphasizes both design issues and fundamental principles in contemporary systems, while providing readers with a solid understanding of the key structures and mechanisms of operating systems. He discusses design trade-offs and the practical decisions affecting design, performance and security. The text illustrates and reinforces design concepts, tying them to real-world design choices with case studies in Linux, UNIX, Android, and Windows 10.

FEATURES

- Four operating systems serve as running examples to illustrate the concepts and to tie them to real-world design choices that must be made: Linux, UNIX, Android, and Windows
- The book includes a number of pedagogic features, including the use of animations and videonotes and numerous figures and tables to clarify the discussion.
- Design concepts discussed in a given chapter are immediately reinforced with real-world examples.
- Running case studies, focused on how specific operating systems implement specific concepts, illustrate concepts and are embedded throughout the text, rather than assembled as a single chapter or appendix.

CONTENT

1. Computer System Overview
2. Operating System Overview
3. Process Description and Control
4. Threads
5. Concurrency: Mutual Exclusion and Synchronization
6. Concurrency: Deadlock and Starvation
7. Memory Management
8. Virtual Memory
9. Uniprocessor Scheduling
10. Multiprocessor, Multicore, and Real-Time Scheduling
11. I/O Management and Disk Scheduling
12. File Management
13. Embedded Operating Systems
14. Virtual Machines
15. Operating System Security
16. Cloud and IoT Operating Syste

ABOUT THE AUTHOR

Dr. William Stallings has authored 18 titles, and including the revised editions, over 40 books on computer security, computer networking, and computer architecture. His writings have appeared in numerous publications, including the Proceedings of the IEEE, ACM Computing Reviews and Cryptologia. He has received the Best Computer Science textbook of the Year award 13 times from the Text and Academic Authors Association.

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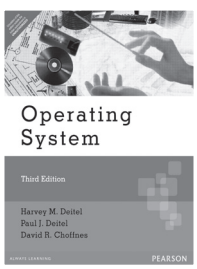
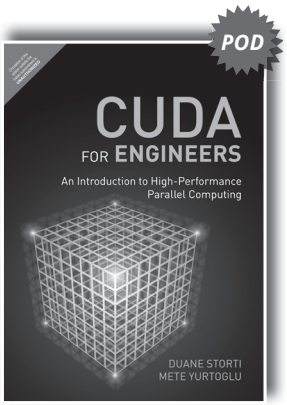


Operating System, 3e

Harvey M.Deitel /Paul J.Deitel / David R.Choffnes

ISBN: 9788131712894
Pages: 1,270

Web Supplements



ISBN: 9789332570948

CUDA for Engineers: An Introduction to High-Performance Parallel Computing

Duane Storti | Mete Yurtoglu

352

ABOUT THE BOOK

Ideal for students with at least introductory programming experience, this tutorial presents examples and reusable C code to jumpstart a wide variety of applications. Students will walk through moving from serial to parallel computation computing values of a function in parallel understanding 2D parallelism simulating dynamics in the phase plane simulating heat conduction interacting with 3D data walking through a basic N-body simulation, and more.

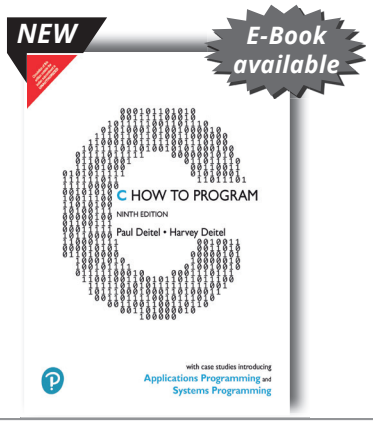
FEATURES

- "Working examples show how to bring low-cost, high-performance parallel computing to engineering and scientific applications
- Includes easy-to-understand, fully-tested code for all examples
- For students with at least introductory programming experience
- Provides CUDA training that can significantly improve an engineer's job market readiness"

ABOUT THE AUTHOR

"Duane Storti is a professor of mechanical engineering at the University of Washington in Seattle. He has thirty-five years of experience in teaching and research in the areas of engineering mathematics, dynamics and vibrations, computer-aided design, 3D printing, and applied GPU computing.

Mete Yurtoglu is currently pursuing an M.S. in applied mathematics and a Ph.D. in mechanical engineering at the University of Washington in Seattle. His research interests include GPU-based methods for computer vision and machine learning.



ISBN: 9789357059565

C How to Program: with Case Studies in Applications and Systems Programming, 9/e

Paul Deitel | Harvey Deitel

836 | © 2024

ABOUT THE BOOK

Deitel and Deitel's C How to Program presents a complete, user-friendly, code-intensive introduction to C programming. Programmers at every level of expertise can find something of value in this book: novices benefit from the ample coverage of fundamentals and the emphasis on problem solving and algorithm development; the focus on performance issues prepares intermediate programmers for professional software-development challenges and practices; and the inclusion of advanced topics is ideal for use in higher-level courses or for further self-study. The book's modular presentation allows instructors to easily adapt the content to a variety of courses, ranging from introductory college programming courses to professional industry training courses. The ninth edition includes 147 fully working programs, keeping in line with the Deitels' signature livecode approach. Access to these complete programs gives students the opportunity to apply their learning to meaningful real-world scenarios. The content adheres to the C11/C18 standards to keep pace with expanded C capabilities. It also incorporates popular open-source software like Docker and resources like GitHub and StackOverflow to encourage students to think like developers.

FEATURES

- Over 350 integrated Self Check exercises, with answers, support the Deitels' new "Intro to" pedagogy, allowing students to "read a little, do a little, test a little.
- Case studies and exercises incorporated throughout the text use real-world data and are guided by the latest ACM/IEEE computing curricula recommendations, highlighting security, data science, ethics, privacy, and performance concepts.
- New! Enhanced case studies focus on data science and visualization with gnuplot. Data science topics include random-number generation, survey data analysis, natural language processing, and artificial intelligence.
- New! A dedicated chapter (Chapter 13) now presents expanded coverage of sorting algorithms and analysis of algorithms with Big O.
- New! Appendix D presents a user-friendly overview of object-oriented programming fundamentals to help introduce students to different programming paradigms.

CONTENTS

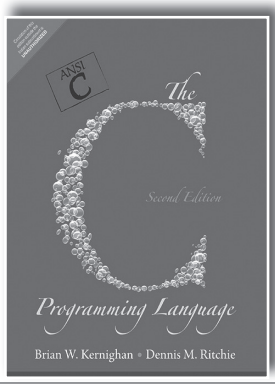
ABOUT THE AUTHORS

Paul J. Deitel, CEO and Chief Technical Officer of Deitel & Associates, Inc., is an MIT graduate with 41 years of experience in computing. Paul is one of the world's most experienced programming-languages trainers, having taught

professional courses to software developers since 1992. He has delivered hundreds of programming courses to academic, industry, government and military clients internationally, including Cisco, IBM, Siemens, Sun Microsystems (now Oracle), Dell, Fidelity, NASA at the Kennedy Space Center, the National Severe Storm Laboratory, White Sands Missile Range, Rogue Wave Software, Boeing, Nortel Networks, Puma, iRobot, UCLA and many more. He and his coauthor, Dr. Harvey M. Deitel, are among the world's best-selling programming-language textbook, professional book, video and interactive multimedia e-learning authors.

Dr. Harvey M. Deitel, Chairman and Chief Strategy Officer of Deitel & Associates, Inc., has 59 years of experience in computing. Dr. Deitel earned B.S. and M.S. degrees in Electrical Engineering from MIT and a Ph.D. in Mathematics from Boston University; he studied computing in each of these programs before they spun off Computer Science programs. He has extensive college teaching experience, including earning tenure and serving as the Chairman of the Computer Science Department at Boston College before founding Deitel & Associates, Inc., in 1991 with his son, Paul. The Deitels' publications have earned international recognition, with more than 100 translations published in Japanese, German, Russian, Spanish, French, Polish, Italian, Simplified Chinese, Traditional Chinese, Korean, Portuguese, Greek, Urdu and Turkish. Dr. Deitel has delivered 100s of programming courses to academic, corporate, government and military clients.

The C Programming Language, 2/e



Brian W. Kernighan | **Dennis Ritchie**

284 | © **2015**

ISBN: 9789332549449

ABOUT THE BOOK

This second edition describes C as defined by the ANSI standard. This book is meant to help the reader learn how to program in C. The book assumes some familiarity with basic programming concepts like variables, assignment statements, loops, and functions. A novice programmer should be able to read along and pick up the language.

FEATURES

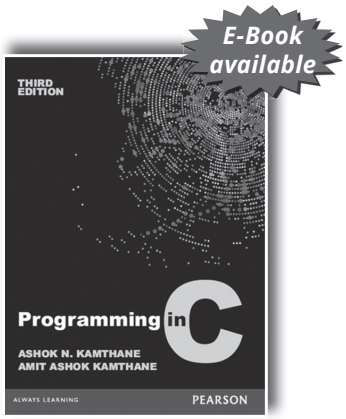
- All examples have been tested, which is in machine-readable form.
- It discusses various aspects of C in more detail, although the emphasis is on examples of complete programs, rather than isolated fragments.
- It deals with basic data types, operators and expressions.
- Covers functions and program structure, external variables, scope rules, multiple source files, and also touches on the preprocessor.
- It also describes an interface between C programs and the UNIX operating system, concentrating on input/output, the file system, and storage allocation.
- It also provides a language reference manual. The official statement of the syntax and semantics of C is the ANSI standard.

CONTENTS

ABOUT THE AUTHORS

Brian W. Kernighan received his BASc from the University of Toronto in 1964 and a PhD in electrical engineering from Princeton in 1969. He was a member of the Computing Science Research center at Bell Labs until 2000, and is now a professor in the Computer Science Department at Princeton. He was a co-creator of several programming languages, including AWK, AMPL, and a number of tools for document preparation.

Dennis Ritchie was a computer scientist notable for his influence on ALTRAN, B, BCPL, C, Multics, and Unix.



ISBN: 9789332543553

Programming in C, 3/e

Ashok N. Kamthane | Amit Ashok Kamthane

704 | © 2015

ABOUT THE BOOK

C is one of the most popular programming languages. It runs on most software platforms and computer architecture. This revised edition of our best-selling text ***Programming in C*** not only maintains the exclusivity of previous editions but also enhances it with the addition of new programs and illustrations. Challenging concepts are supported with numerous solved and unsolved programs. The new chapter on computer graphics ensures that this book comprehensively covers the syllabi of most universities. The book also uses the Turbo C compiler, which is the most widely used C compiler.

FEATURES

- New flowcharts and diagrams.
- Online more than 100 programs Fully tested and executed programs.
- Chapter on Computer Graphics.

CONTENTS

ABOUT THE AUTHOR

Ashok N. Kamthane is associate professor in Electronics and Telecommunication Engineering Department at SGGS Institute of Engineering and technology, Nanded, Maharashtra. He has over 32 years teaching experience, and was associated with the development of hardware and software using 8051 on acoustic transceiver system for submarines.

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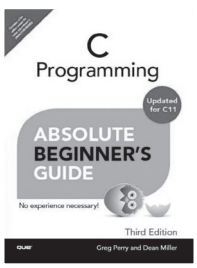
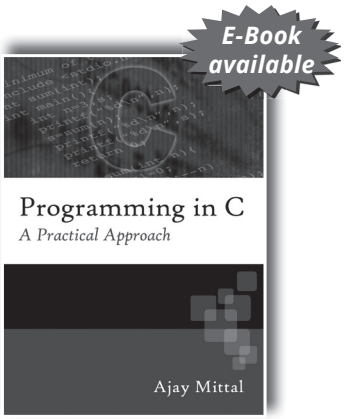


C Programming Absolute Beginner's Guide, 3/e

Greg Perry /Dean Miller

ISBN: 9789332539570
Pages: 352



ISBN: 9788131729342

Programming in C: A Practical Approach

Ajay Mittal

764 | © 2010

Web Supplements

ABOUT THE BOOK

This book on C Programming has a perfect blend of theory as well as practicals. The presentation is in such a way that helps the readers to learn the concepts through practice and programming.

FEATURES

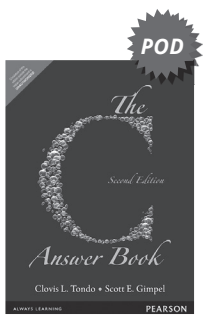
- The book discusses the behavior of the programs with regards to compilers like Borland Turbo C 3.0, Borland Turbo C 4.5 and MS VC++ 6.0
- The book contains over 200 find the output, 300 MCQs
- 60 programming exercises and over 450 test yourself questions to test the student's understanding.
- More than 150 solved programs
- Programs explained alongwith flowcharts and algorithms

CONTENTS

ABOUT THE AUTHOR

Mr. Ajay Mittal is an Associate Professor at the Dept. of Computer Science and Engineering, University Institute of Engineering and Technology, Punjab University, Chandigarh. He has an experience of over 10 yrs in teaching C Programming and analysis and design of algorithm.

➦ ALSO AVAILABLE...

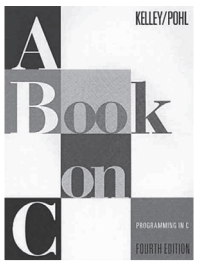


The C Answer Book

Clovis L.Tondo / Scott E.Gimpel

ISBN: 9789332549739
Pages: 216

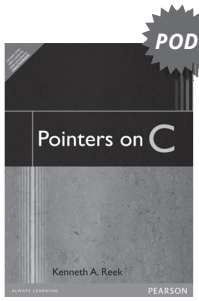
➦ ALSO AVAILABLE...



A Book on C, 4/e

Kelley /Pohl

ISBN: 9788131724347
Pages: 748

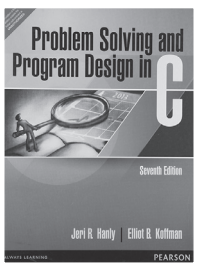


Pointers on C

Kenneth A.Reek

ISBN: 9788131715840
Pages: 640

Web Supplements



Problem Solving & Program Design in C, 7/e

Jeri R Hanly /Elliot B.Koffman

ISBN: 9789332518810
Pages: 840

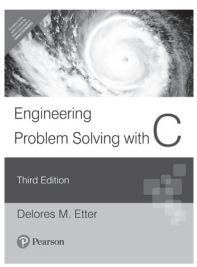
E-Book available

Programming Techniques Through C: A Beginner's Companion

M.G.Venkateshmurthy

ISBN: 9788131705087
Pages: 248

E-Book available



Engineering Problem Solving with C, 3/e

Delores M.Etter

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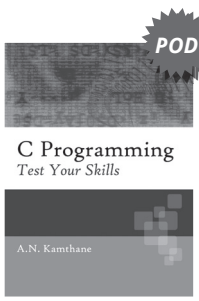
Pages: 472

E-Book available

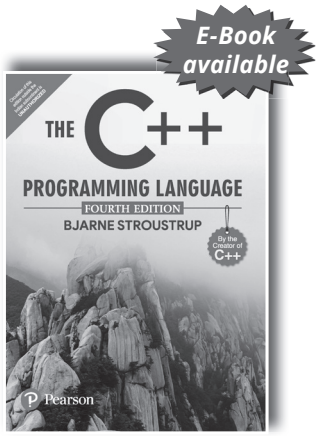


C Programming: Test Your Skills

A.N.Kamthane

ISBN: 9788131732090
Pages: 354

E-Book available



ISBN: 9789356060135

C++ Programming Language, 4/e

Bjarne Stroustrup

1364 | © **2022**

ABOUT THE BOOK

The definitive book on C++ by the creator of C++, The C++ Programming Language teaches one of the most widely-used, general-purpose programming languages. At an advanced pace this book teaches how to work with compilers updated for the new standard. Students heading toward domains where mid-size to large applications are being developed - networking, finance, graphics, and games - will find this book an excellent learning tool.

FEATURES

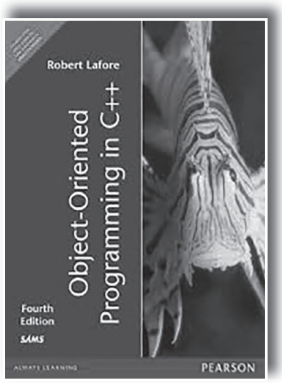
- Makes C++11 thoroughly accessible to programmers moving from C++98 or other languages, while introducing insights and techniques that even cutting-edge C++11 programmers will find indispensable
- New C++11 includes support for concurrency, regular expressions, general and uniform initialization, lambdas, compatibility issues, and much more
- This book features an enhanced, layflat binding, which allows the book to stay open more easily when placed on flat surface and increases durability

CONTENTS

ABOUT THE AUTHOR

Bjarne Stroustrup is the designer and original implementer of C++ and the author of Programming: Principles and Practice Using C++, 2nd Edition and The C++ Programming Language, among others. Having previously worked at Bell Labs, AT&T Labs - Research, and Texas A&M University, he is currently Managing Director in the technology division of Morgan Stanley in New York City. The recipient of numerous honors, including The National Academy of Engineering 2018 Charles Stark Draper Prize for Engineering "for conceptualizing and developing the C++ programming language,

Dr. Stroustrup is a member of the National Academy of Engineering, an AT&T Fellow, an AT&T Bell Laboratories Fellow, an IEEE Fellow, and an ACM Fellow. He was voted into Electronic Design's Engineering Hall of Fame in 2013. His research interests include distributed systems, simulation, design, programming techniques, software development tools, and programming languages, and he remains actively involved in the ANSI/ISO standardization of C++. Dr. Stroustrup holds an advanced degree from the University of Aarhus in his native Denmark and a Ph.D. in Computer Science from Cambridge University, England.



ISBN: 9788131722824

Object Oriented Programming in C++, 4/e

Robert Lafore

1,040 | © **2008**

Web Supplements

ABOUT THE BOOK

Object Oriented Programming in C++ is a comprehensive solution for teaching object-oriented programming using the features of ANSI/ISO C++. It covers the basic concepts of object-oriented programming, why those concepts exist and how to make them work effectively. The Fourth Edition is updated and revised to include more UML coverage, inter-file communication, and use-cases analysis to explain software design. The book covers object-oriented programming through task-oriented examples and figures to conceptualize the techniques and approaches used. It also contains questions and exercises to reinforce the concepts students have learned.

FEATURES

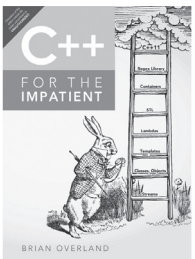
- Comprehensive Coverage—Offers extensive coverage on C++ programming concepts.
- Provides students with the fundamentals of C++.
- Object-Oriented Programming—Uses the C++ language.
- Explains object-oriented programming to students through the C++ language.
- Emphasis on why these concepts exist and how to utilize them to create efficient applications.
- Teaches students the background behind the concepts and how to make them work more effectively.
- Tutorial-style.
- Gives the students a "hands-on" approach to object-oriented programming.
- Increased coverage of UML—Illustrates program structure and flow.
- Helps students comprehend important concepts.

CONTENTS

ABOUT THE AUTHOR

Robert Lafore has been writing books about computer programming since 1982. His best- selling titles include Assembly Language Programming for the IBM PC, C Programming Using Turbo C++, C++ Interactive Course, and Data Structures and Algorithms in Java. Mr. Lafore holds degrees in mathematics and electrical engineering, and has been active in programming since the days of the PDP-5, when 4K of main memory was considered luxurious. His interests include hiking, windsurfing, and recreational mathematics.

➦ **ALSO AVAILABLE...**

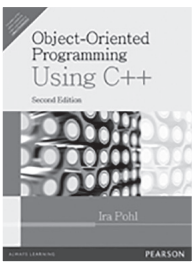


C++ for the Impatient

Brian Overland

ISBN: 9789332539228
Pages: 720

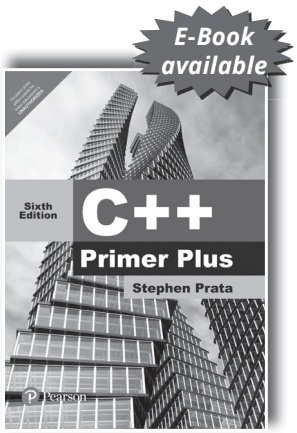
➦ **ALSO AVAILABLE...**



Object Oriented Programming Using C++, 2/e

Ira Pohl

ISBN: 9788131703915
Pages: 576



ISBN: 9789332546189

C++ Primer Plus, 6/e

Stephen Prata

1,200 | © **2015**

ABOUT THE BOOK

C++ Primer Plus is an approachable yet technically rigorous guide to C++ for programmers new to the language. This new edition updates it with the most important features added to the C++11 standard, while keeping the style and approach which have made the previous editions so popular. It contains extensive new code samples and exercises, for both classroom use and self-study.

FEATURES

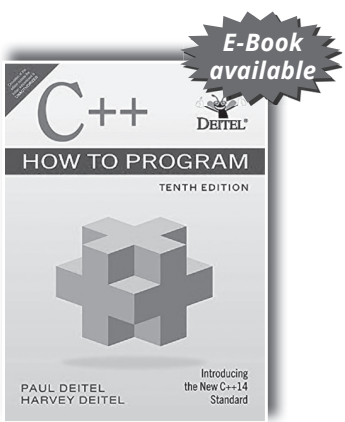
- New coverage of the C++11 standard
- Teaches fundamentals of programming including principles of structured code and top-down design
- Written in a friendly and engaging style, yet completely technically accurate
- Instructor resources available through the IRC: solutions to end of chapter programming exercises and source code for the book's examples

CONTENTS

1. Getting Started with C++
2. Data Types
3. Control Statements and Operators
4. Functions
5. Memory models and Namespace
6. Objects and Classes
7. More on classes
8. Friends, Exceptions and, More
9. The string class and the Standard Template Library
10. Input, Output, and Files
11. Reusing Code in C++ (online)
12. Visiting with the New C++ Standard (online)

ABOUT THE AUTHOR

Stephen Prata taught astronomy, physics, and computer science at the College of Marin in Kentfield, California. He received his B.S. from the California Institute of Technology and his Ph.D. from the University of California, Berkeley. He has authored or coauthored more than a dozen books on programming topics including New C Primer Plus, which received the Computer Press Association's 1990 Best How-to Computer Book Award, and C++ Primer Plus, nominated for the Computer Press Association's Best How-to Computer Book Award in 1991.



ISBN: 9789332585737

C++ How to Program, 10/e

Harvey M. Deitel | **Paul Deitel**

1,072 | © **2017**

ABOUT THE BOOK

Millions of students and professionals worldwide have learned programming and software development with Deitel&amptrade college textbooks, LiveLessons videos and e-publications, online resource centers and instructor-led corporate training. ***C++ How to Program, 10/e*** provides a clear, engaging and entertaining introduction to C++11 and C++14 programming with hundreds of fully coded programs and detailed explanations.

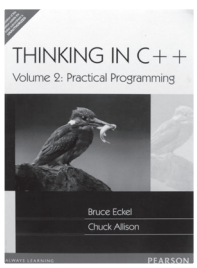
FEATURES

- Rich coverage of fundamentals
- A clear, example-driven presentation of objects, classes, inheritance and polymorphism
- Conforms to the C++11 and C++14 standards
- Standard Library containers, iterators and algorithms, Lambdas, generic programming with templates
- Exception handling, strings, files, data structures
- Adheres to key CERT secure C++ coding guidelines
- Extensive real-world OO case studies, including the optional OO design/implementation ATM case study
- Making a Difference exercises set
- Code tested on GNU g++,Microsoft Visual C++ and Clang/LLVM in Apple Xcode compilers

CONTENTS

1. Introduction to Computers and C++
2. Introduction to C++ Programming; Input/Output and Operators
3. Introduction to Classes, Objects, Member Functions and Strings
4. Algorithm Development and Control Statements: Part 1
5. Control Statements: Part Logical Operators
6. Functions and an Introduction to Recursion
7. Class Templates array and vector; Catching Exceptions
8. Pointers
9. Classes: A Deeper Look
10. Operator Overloading; Class string
11. Object-Oriented Programming: Inheritance
12. Object-Oriented Programming: Polymorphism
13. Stream Input/Output: A Deeper Look
14. File Processing
15. Standard Library Containers and Iterators
16. Standard Library Algorithms
17. Exception Handling: A Deeper Look
18. Introduction to Custom Templates
19. Custom Templatized Data Structures
20. Searching and Sorting
21. Class string and String Stream Processing: A Deeper Look
22. Bits, Characters, C Strings and structs

➦ ALSO AVAILABLE...

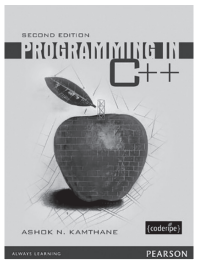


Thinking in C++, Volume 2: Practical Programming

Bruce Eckel /Chuck Allison

ISBN: 9788131711729
Pages: 824

➦ ALSO AVAILABLE...

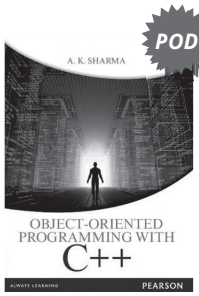


Programming in C++ 2/e

Ashok N.kamthane

ISBN: 9788131791448
Pages: 904

E-Book available



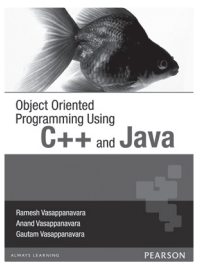
POD

Object-Oriented Programming with C++

A.K.Sharma

ISBN: 9789332515833
Pages: 352

E-Book available



Object Oriented Programming Using C++ and Java

Ramesh Vasappanavara / Anand Vasappanavara /Gautam

ISBN: 9788131754559
Pages: 672

Web Supplements

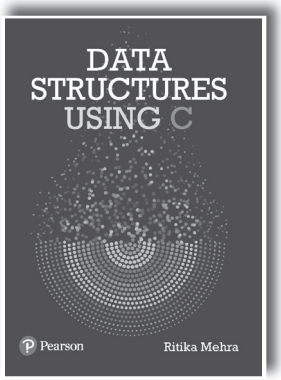
POD

C++ Programming: A Practical Approach

Madhusudan Mothe

ISBN: 9788131760529
Pages: 472

E-Book available



ISBN: 9789390394500

Data Structures Using C

Ritika Mehra

504 | © 2021

ABOUT THE BOOK

This book is the right choice for the students to master "Data Structures in C". Out of the plenty of books available in market, this book is less bulky, so students will not get into fear with the size of the book. This book is best if you are starting from zero as it is basic book that gives easy explanation of a text with the help of diagrams. It is written in simple and lucid manner so that beginner can easily understand. Students can directly study from the book as there is no need to make separate notes

FEATURES

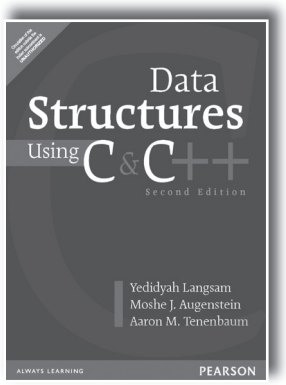
- Number of illustrative figures to solve problem.
- Covers all the topics of data structures and their implementation.
- Programs are well executed on Turbo C. Theory is supported by algorithms which effortlessly help to develop programming logic.
- Algorithm and its C Code are written parallelly.

CONTENTS

ABOUT THE AUTHOR

Ritika Mehra, is Professor and Dean in School of Computer Science at Dev Bhoomi Uttarakhand University. She received her Ph.D. degree in Computer Science from Gurukul Kangri University, Haridwar. She is innovative person with deep knowledge of Machine learning, Data Mining, Advance Networking etc. She has supervised number of research scholars, and many others are presently under her guidance. She has published many research papers in various National and International Journals of reputed publish.

Data Structures Using C and C++, 2/e



Yedidyah Langsam | **Moshe J. Augenstein** | **Aaron M. Tenenbaum**

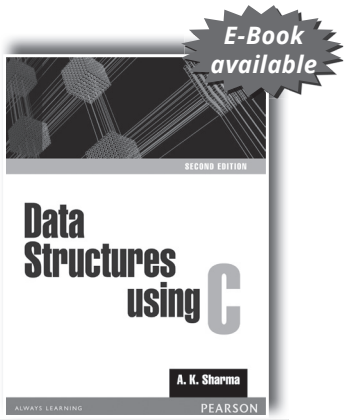
672 | © **2015**

ISBN: 9789332549319

ABOUT THE BOOK

This very successful data structures text uses the standard ANSI C programming language to present the fundamentals of data structures and algorithm analysis. In addition, the authors introduce the features of C++ and show how they can be used to implement data structures. Real world problems are used to demonstrate how abstract concepts can be solved through the careful application of C and C++.

Data Structures using C, 2/e



A.K. Sharma

520 | © **2013**

ISBN: 9788131792544

ABOUT THE BOOK

A data structure is the logical organization of a set of data items that collectively describe an object. Using the C programming language, this book describes how to effectively choose and design a data structure for a given situation or problem. The book has a balance between the fundamentals and advanced features, supported by solved examples. This book completely covers the curriculum requirements of computer engineering courses across universities in India.

FEATURES

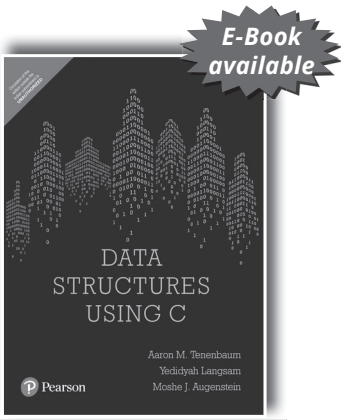
- Easy to understand text coupled with simple to understand examples
- Every data-structure is supported with a pictorial representation and its possible implementations.
- Over 100 solved problems
- All programs tested using Turbo ';C'.

CONTENTS

1. Overview of ';C'
2. Data Structures and Algorithms: An Introduction
3. Arrays: Searching and Sorting
4. Stacks and Queues
5. Pointers
6. Linked Lists
7. Trees
8. Graphs
9. Files
10. Advanced Data-Structures

ABOUT THE AUTHOR

A.K. Sharma is currently Chairman, Department of Computer Engineering, and Dean of Faculty, Engineering and Technology at YMCA University of Science and Technology, Faridabad. He is also a member of the Board of Studies committee of Maharshi Dayanand University, Rohtak. He has guided 10 Ph.D. theses and has published about 215 research papers in national and international journals of repute. He heads a group of researchers actively working on the design of different types of 'Crawlers'.



ISBN: 9789332543546

Data Structures Using C

Aaron M. Tenenbaum | Yedidyah Langsam | Moshe J. Augenstein

640 | © 2019

ABOUT THE BOOK

With a strong emphasis on structured design and programming techniques, the book features precise instructions on all the steps involved in data structure development—from theoretical conception to concrete realization. Helping readers build efficient C data structures, it explains how to apply data structures to enhance program execution.

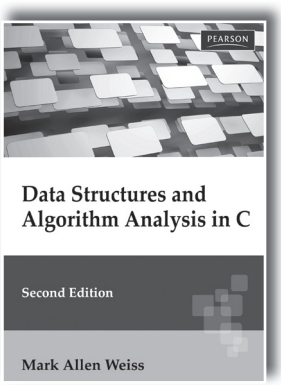
FEATURES

- Follows data structure development from its theoretical conception to its concrete realization.
- Offers several alternative implementations of data structures and discusses trade-offs involved in choosing a particular approach.
- Contains numerous debugged programming examples.
- Emphasizes structured design and programming techniques.

CONTENTS

ABOUT THE AUTHOR

Aaron M. Tenenbaum, Brooklyn College, City University of NY



ISBN: 9788177583588

Data Structures and Algorithm Analysis in C, 2/e

Mark Allen Weiss

528 | © 2005

Web Supplements

ABOUT THE BOOK

In the second edition of this best-selling book, the author continues to refine and enhance his innovative approach to algorithms and data structures. Using a C implementation, he highlights conceptual topics, focusing on ADTs and the analysis of algorithms for efficiency as well as performance and running time.

FEATURES

- Includes a chapter on algorithm and design techniques that cover greedy algorithms, divide and conquer algorithms, dynamic programming, randomized algorithms and backtracking.
- Presents current topics and newer data structures such as Fibonacci heaps, skew heaps, binomial queues, skip lists and splay trees.
- Incorporates new results on the average case analysis of heapsort.
- Offers source code from example programme via anonymous FTP.

CONTENTS

1. Introduction
2. Algorithms Analysis
3. Lists, Stacks, and Queues
4. Trees
5. Hashing
6. Priority Queues (Heaps)
7. Sorting
8. The Disjoint Set ADT
9. Graphs Algorithms
10. Algorithm Design Techniques
11. Amortized Analysis
12. Advanced Data Structures and Implementation

ABOUT THE AUTHOR

Mark Allen Weiss belongs to the Department of Computer Science at the Florida International University.

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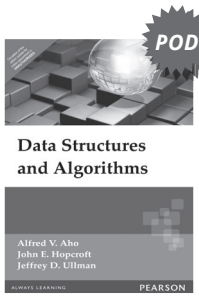
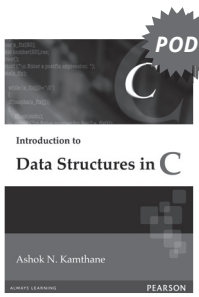


Data Structures and Algorithms

Alfred V.Aho /John E.Hopcroft / Jeffrey D.Ullman

ISBN: 9788177588262
Pages: 436



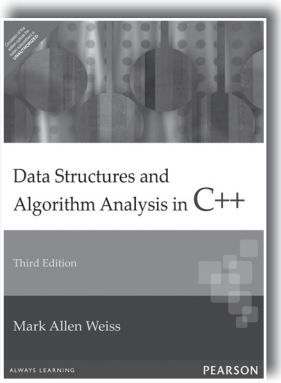
Introduction to Data Structures in C

Ashok N.Kamthane

ISBN: 9788131713921
Pages: 512

E-Book available

DATA STRUCTURES USING C++



ISBN: 9788131714744

Data Structures and Algorithm Analysis in C++, 3/e

Mark Allen Weiss

606 | © **2007**

Web Supplements

ABOUT THE BOOK

The C++ language is brought up-to-date and simplified, and the Standard Template Library is now fully incorporated throughout the text. ***Data Structures and Algorithm Analysis in C++*** is logically organized to cover advanced data structures topics from binary heaps to sorting to NP-completeness. Figures and examples illustrating successive stages of algorithms contribute to Weiss' careful, rigorous and in-depth analysis of each type of algorithm.

FEATURES

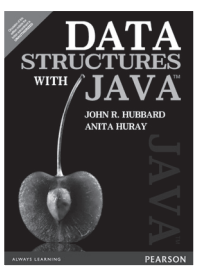
- Discussion of algorithm and design techniques covers greedy algorithms, divide and conquer algorithms, dynamic programming, randomized algorithms, and backtracking.
- Covers topics and data structures such as Fibonacci heaps, skew heaps, binomial queue, skip lists and splay trees.

CONTENTS

1. Introduction
2. Algorithm Analysis
3. Lists, Stacks, and Queues
4. Trees
5. Hashing
6. Priority Queues (Heaps)
7. Sorting
8. The Disjoint Set Class
9. Graph Algorithms
10. Algorithm Design Techniques
11. Amortized Analysis
12. Advanced Data Structures and Implementation

DATA STRUCTURES USING JAVA

DATA STRUCTURES USING JAVA



Data Structures with Java

John R.Hubbard / Anitha Huray

ISBN: 9789332549395
Pages: 700

ISBN: 9789357055048

Introduction to Java Programming and Data Structures, Comprehensive Version, 12/e

Y. Daniel Liang

1240 | © 2024

ABOUT THE BOOK

Introduction to Java Programming and Data Structures seamlessly integrates programming, data structures, and algorithms into one text. With a fundamentals-first approach, the text builds a strong foundation of basic programming concepts and techniques before teaching students object-oriented programming and advanced Java programming. Liang explains programming in a problem-driven way that focuses on problem solving rather than syntax, illustrating basic concepts by example and providing a large number of exercises with various levels of difficulty for students to practice. The 12th Edition is completely revised in every detail to enhance clarity, presentation, content, examples, and exercises.

FEATURES

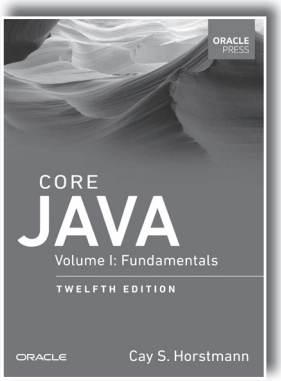
- NEW: Both Comparable and Comparator are used to compare elements in Heap, Priority-Queue, BST, and AVLTree. This is consistent with the Java API and is more useful and flexible.
- NEW: String matching algorithms are introduced in Chapter 22: Developing Efficient Algorithms.
- UPDATED: Java 9, 10, 11 and FX11 are covered to keep the text up to date with current technologies. Examples are improved and simplified.
- UPDATED: Lambda expressions are used in more examples and exercises in the data structures chapters to simplify coding.
- UPDATED: Programming Exercises are grouped by sections to provide students with opportunities to apply the new skills they have learned on their own.

CONTENTS

ABOUT THE AUTHOR

Y. Daniel Liang Georgia Southern University

Core Java, Vol. 1: Fundamentals, 12/e



Cay S. Horstmann

802 | © **2023**

ISBN: 9788119847334

ABOUT THE BOOK

Core Java, Volume I: Fundamentals, Twelfth Edition, is the definitive guide to writing robust, maintainable code. Whatever version of Java students are using--up to and including Java 17--this book will help them achieve a deep and practical understanding of the language and APIs. With hundreds of realistic examples, Cay S. Horstmann reveals the most powerful and effective ways to get the job done. This book is written for readers with prior programming experience who are looking for in-depth coverage of the Java language and platform. Students will learn about all language features in detail, including the recent improvements in Java 17. The applied chapters and code examples cover the most up-to-date capabilities of the vast Java library. This first of two volumes offers in-depth coverage of fundamental Java programming, including object-oriented programming, generics, collections, lambda expressions, concurrency, and functional programming. Classic material for Swing UI programming is included for those who need it. This edition's new content covers text blocks, switch enhancements, records, pattern matching for instance of, sealed classes, and more.

FEATURES

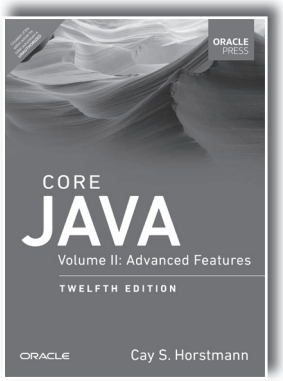
- Master foundational techniques, idioms, and best practices for writing superior Java code
- Leverage the power of interfaces, lambda expressions, and inner classes
- Harden programs through effective exception handling and debugging
- Write safer, more reusable code with generic programming
- Improve performance and efficiency with Java's standard collections
- Build cross-platform GUIs with the Swing toolkit
- Fully utilize multicore processors with Java's improved concurrency

CONTENTS

ABOUT THE AUTHOR

Cay S. Horstmann is author of Modern JavaScript for the Impatient (2020), Core Java® SE 9 for the Impatient, Second Edition (2017), Scala for the Impatient, Second Edition (2016), and Java SE 8 for the Really Impatient (2014), all from Addison-Wesley. He has written more than a dozen other books for professional programmers and computer science students. He is an emeritus professor of computer science at San Jose State University and a Java Champion.

Core Java, Vol. 2: Advanced Features, 12/e



Cay S. Horstmann

866 | © **2023**

ISBN: 9788119847433

ABOUT THE BOOK

Core Java, Volume II: Advanced Features, Twelfth Edition, has been revised to cover the new features and enhancements in the Java 17 long-term support release. As always, all chapters have been completely updated, outdated material has been removed, and the new APIs are covered in detail. This volume focuses on the advanced topics that a programmer needs to know for professional software development and includes authoritative coverage of enterprise programming, networking, databases, security, modularization, internationalization, code processing, and native methods, as well as complete chapters on the Streams, XML, and Date and Time APIs. In addition, the chapter on Advanced Swing and Graphics covers techniques that are applicable to both client-side user interfaces and server-side generation of graphics and images. Cay S. Horstmann clearly explains sophisticated new features with depth and completeness and demonstrates how to use them to build professional-quality applications. Horstmann's thoroughly tested sample code reflects modern Java style and best practices. The examples are carefully crafted for easy understanding and maximum practical value, so you can rely on them to jump-start your own programs.

FEATURES

- Master advanced techniques, idioms, and best practices for writing reliable Java code
- Make the most of enhanced Java I/O APIs, object serialization, and regular expressions
- Efficiently connect to network services, implement servers and the new HTTP/2 client, and harvest web data
- Process code via the Scripting and Compiler APIs, and use annotations to generate code and files
- Deepen your understanding of the Java Platform Module System, including recent refinements
- Leverage the Java security model, user authentication, and the security library's cryptographic functions
- Preview powerful new APIs for accessing "foreign" functions and memory

CONTENTS

ABOUT THE AUTHOR

Cay S. Horstmann is author of Modern JavaScript for the Impatient (2020), Core Java® SE 9 for the Impatient, Second Edition (2017), Scala for the Impatient, Second Edition (2016), and Java SE 8 for the Really Impatient (2014), all from Addison-Wesley. He has written more than a dozen other books for professional programmers and computer science students. He is an emeritus professor of computer science at San Jose State University and a Java Champion.

ISBN: 9789353062033

Java How to Program

Paul Deitel | Harvey Deitel

1288 | © 2018

ABOUT THE BOOK

Java How to Program, Early Objects, 11th Edition, presents leading-edge computing technologies using Deitels' signature live-code approach, which demonstrates concepts in hundreds of complete working programs. The groundbreaking How to Program series offers unparalleled breadth and depth of programming fundamentals, object-oriented programming concepts and intermediate-level topics for further study. This edition presents updated coverage of Java SE 8 and new Java SE 9 capabilities, including JShell, the Java Module System, and other key Java 9 topics.

FEATURES

- Rich coverage of programming fundamentals; real-world examples:
  - Interactive Java through JShell–Java SE 9's most exciting new pedagogic feature
  - Lambdas, sequential and parallel streams, functional interfaces
  - JavaFX GUI, 2D and 3D graphics, animation and video
  - Composition vs. Inheritance, dynamic composition
  - Programming to an interface not an implementation
  - Files, input/output streams and XML serialization
  - Concurrency for optimal multi-core performance
  - Other topics: recursion, searching, sorting, generics, data structures, optional Swing GUI, multithreading, database (JDBC TM and JPA)
- Outstanding applied pedagogy to facilitate learning:
  - Programming Wisdom: Hundreds of valuable programming tips facilitate learning. Icons throughout the text identify Software Engineering Observations, Good Programming Practices, Common Programming Errors, Error-Prevention Tips, Portability Tips, Performance Tips, and Look-and-Feel Observations (for GUI design).
  - Hundreds of self-review exercises with answers.
  - Hundreds of interesting real-world exercises and projects enable students to apply what they've learned.
  - "Making a Difference" exercises encourage students to use computers and the Internet to research and address significant social problems.

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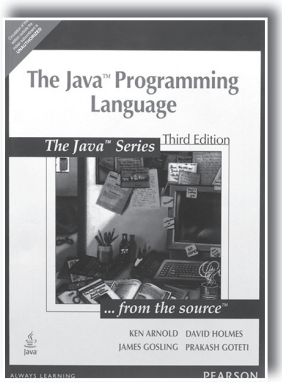
27. Graphics and Java 2D
28. Networking
29. Java Persistence API (JPA)
30. JavaServer™ Faces Web Apps: Part 1
31. JavaServer™ Faces Web Apps: Part 2
32. REST-Based Web Services
33. (Optional) ATM Case Study, Part 1: Object-Oriented Design with the UML
34. (Optional) ATM Case Study, Part 2: Implementing an Object-Oriented Design
35. Swing GUI Components: Part 2
36. Java Module System and Other Java 9 Features
F. Using the Java API Documentation
G. Creating Documentation with javadoc
H. Unicode®
I. Formatted Output
J. Number Systems
K. Bit Manipulation
L. Labeled break and continue Statements
M. UML 2: Additional Diagram Types
N. Design Patterns



ISBN: 9788131702215

The Java Programming Language, 3/e

James Gosling | Ken Arnold | David Holmes

712 | © 2008

ABOUT THE BOOK

This is the definitive Java book written by the inventors of the language. Thoroughly revised from start to finish, this new edition describes the newest version of the Java programming language, version 1.3 of the Java 2 platform Standard Edition. More than just API updates, this third edition has been restructured to give more in-depth treatment of the newer language features, as well as informative examples on using the new core classes like the collections and internationalization packages.

Direct from the creators of the Java™ programming language, this Third Edition provides unique insights into why and how the language was designed and intended to be used. More advanced students will find this new edition to be a valuable reference, and will gain new insights into the subtleties of the language. Beginning and intermediate students will benefit from the valuable examples and clear explanations of language and library features.

FEATURES

- Restructured to deliver in-depth coverage of Java's most critical new features.
- Extensive code examples help developers make the most of new Java features -- from collections to internationalization, and beyond.
- By three leaders of the Java community, including Java creator James Gosling, Jini architect Ken Arnold, and Sr. Research Scientist David Holmes.

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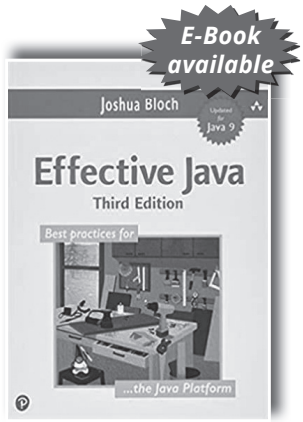
1. A Quick Tour
2. Classes and Objects
3. Extending Classes
4. Interfaces
5. Nested Classes and Interfaces
6. Tokens, Operators, and Expressions
7. Control Flow
8. Exceptions
9. Strings
10. Threads
11. Programming with Types
12. Garbage Collection and Memory
13. Packages
14. Documentation Comments
15. The I/O Package
16. Collections
17. Miscellaneous Utilities
18. System Programming
19. Internationalization and Localization
20. Standard Packages

ABOUT THE AUTHOR

Ken Arnold, formerly senior engineer at Sun Microsystems Laboratories, is a leading expert in object-oriented design and implementation. He was one of the original architects of the Jini™ technology, and the lead engineer of Sun's JavaSpaces™ technology.

James Gosling is a Fellow and Chief Technology Officer of Sun's Developer Products group, the creator of the Java programming language, and one of the computer industry's most noted programmers. He is the 1996 recipient of Software Development's "Programming Excellence Award." He previously developed NeWS, Sun's network-extensible window system, and was a principal in the Andrew project at Carnegie Mellon University, where he earned a Ph.D. in computer science. David Holmes is director of DLTeCH Pty Ltd, located in Brisbane, Australia. He specializes in synchronization and concurrency and was a member of the JSR-166 expert group that developed the new concurrency utilities. He is also a contributor to the update of the Real-Time Specification for Java, and has spent the past few years working on an implementation of that specification.



ISBN: 9789356060661

Effective Java, 3/e

Joshua Bloch

416 | © **2022**

ABOUT THE BOOK

Since this Jolt-award winning classic was last updated in 2008 (shortly after Java 6 was released), Java has changed dramatically. The principal enhancement in Java 8 was the addition of functional programming constructs to Java's object-oriented roots. Java 7, 8, and 9 also introduced language features, such as the try-with-resources statement, the diamond operator for generic types, default and static methods in interfaces, the @SafeVarargs annotation, and modules. New library features include pervasive use of functional interfaces and streams, the java.time package for manipulating dates and times, and numerous minor enhancements such as convenience factory methods for collections.

In this new edition of Effective Java, Bloch updates the work to take advantage of these new language and library features, and provides specific best practices for their use. Java's increased support for multiple paradigms increases the need for best-practices advice, and this book delivers.

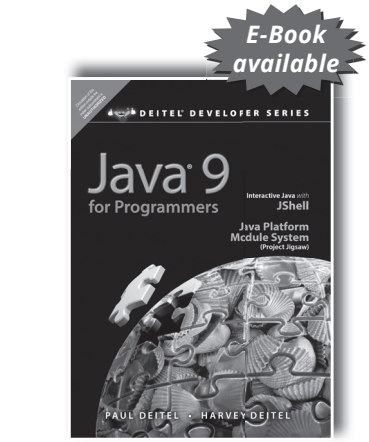
FEATURES

- Presents the most practical, authoritative guidelines available for writing efficient, well-designed programs for the Java platform
- Completely updated for Java releases since 2008
- Java programming paradigm has evolved significantly in last 5 years and new material covered in this edition is critical to modern Java programming
- New to This Edition
- Thoroughly revised and updated to cover language and library features added in Java 7, 8, and 9, and recent trends in Java programming. Many new items have been added, including a chapter devoted to lambdas and streams. New topics include:
  - Functional interfaces, lambda expressions, method references, and streams
  - Default and static methods in interfaces
  - Type inference, including the diamond operator for generic types
  - The @SafeVarargs annotation
  - The try-with-resources statement
  - New library features such as java.time and the convenience factory methods for collections

CONTENTS

ABOUT THE AUTHOR

Joshua Bloch, is a professor at Carnegie Mellon University. He was formerly the chief Java architect at Google, a distinguished engineer at Sun Microsystems, and a senior systems designer at Transarc. He led the design and implementation of numerous Java platform features, including the JDK 5.0 language enhancements and the Java Collections Framework. He holds a Ph.D. in computer science from Carnegie Mellon University and a B.S. in computer science from Columbia University.



ISBN: 9789352866540

Java 9 for Programmers, 4/e

Paul J. Deitel | Harvey Deitel

1120 | © 2018

ABOUT THE BOOK

Written for programmers with a background in another high-level language, this book applies the Deitel signature live-code approach to teaching programming and explores the Java® 9 language and APIs in depth. The book presents concepts in fully tested programs, complete with code walkthroughs, syntax shading, code highlighting and program outputs. It features hundreds of complete Java 9 programs with thousands of lines of proven code, and hundreds of software-development tips that will help you build robust applications.

FEATURES

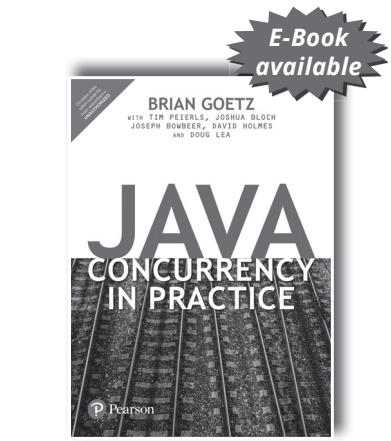
- A comprehensive tutorial to the Java programming language, for programmers who are new to Java
- Uses the Deitels' signature ""live code"" style, where every programming concept is explored in the context of a complete working program, not a code fragment
- Covers everything from the basics to advanced topics such as multithreading, as well as all the new features in Java SE 9

CONTENTS

ABOUT THE AUTHOR(S)

Paul Deitel, CEO and Chief Technical Officer of Deitel & Associates, Inc., is a graduate of MIT, where he studied Information Technology. Through Deitel & Associates, Inc., he has delivered hundreds of programming courses worldwide to clients, including Cisco, IBM, Siemens, Sun Microsystems, Dell, Fidelity, NASA at the Kennedy Space Center, the National Severe Storm Laboratory, White Sands Missile Range, Rogue Wave Software, Boeing, SunGard Higher Education, Nortel Networks, Puma, iRobot, Invensys and many more. He and his co-author, Dr. Harvey M. Deitel, are the world's best-selling programming-language textbook/professional book/video authors.

Dr. Harvey Deitel, Chairman and Chief Strategy Officer of Deitel & Associates, Inc., has over 50 years of experience in the computer field. Dr. Deitel earned B.S. and M.S. degrees in Electrical Engineering from MIT and a Ph.D. in Mathematics from Boston University. He has extensive college teaching experience, including earning tenure and serving as the Chairman of the Computer Science Department at Boston College before founding Deitel & Associates, Inc., in 1991 with his son, Paul. The Deitels' publications have earned international recognition, with translations published in Japanese, German, Russian, Spanish, French, Polish, Italian, Simplified Chinese, Traditional Chinese, Korean, Portuguese, Greek, Urdu and Turkish. Dr. Deitel has delivered hundreds of programming courses to corporate, academic, government and military clients.



ISBN: 9789332576520

Java Concurrency in Practice

David Holmes | Doug Lea | Brian Goetz | Tim Peierls | Joshua Bloch | Joseph Bowbeer

368 | © 2017

ABOUT THE BOOK

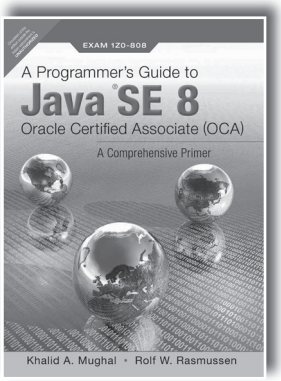
This book is a combination of concepts, guidelines, and examples intended to assist developers in the difficult process of understanding concurrency and its new tools in J2SE 5.0. Filled with contributions from Java gurus such as Josh Bloch, David Holmes and Doug Lea, this book provides any Java programmers with the basic building blocks they need to gain a basic understanding of concurrency and its benefits.

FEATURES

- Powerhouse author team with contributions from Doug Lea, Josh Bloch and David Holmes
- A practical, hands-on, example-driven guide for every working Java programmer
- Based on J2SE 5.0 which includes many new concurrency features that make concurrency development much more accesible (and necessary)

CONTENTS

A Programmer's Guide to Java SE 8 Oracle Certified Associate (OCA)



ISBN: 9789332579378

Khalid A. Mughal | Rolf W. Rasmussen

680 | © 2017

ABOUT THE BOOK

Unique among Java books, A Programmer's Guide to OCA Java SE 8 Certification, A Comprehensive Primer, Fourth Edition combines an integrated, expert guide to Java SE 8 with comprehensive review for Oracle's newest OCA certification exam. Khalid A. Mughal and Rolf W. Rasmussen have thoroughly revised this tutorial/reference/prep guide to reflect major changes in the exam, including its increased focus on analyzing code scenarios, not just individual language constructs. Mughal and Rasmussen thoroughly address each exam objective, reflecting the latest Java SE 8 features, API classes, and best practices for effective development.

FEATURES

- The definitive, complete tutorial and prep guide for the new Oracle Certified Associate (OCA) exam for Java SE 8: fully revised and updated.
- The only book to combine an integrated, up-to-date guide to Java with comprehensive OCA review.
- Supports the exam's increased focus on analyzing code scenarios, not just individual language constructs.
- Covers declarations, initialization, scoping, flow control, key APIs, concurrency, objects, collections, generics, access control, and more.
- Provides valuable code examples, hands-on exercises, review questions, and several full practice exams.

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ABOUT THE AUTHORS

Khalid A. Mughal is an associate professor at the Department of Informatics, University of Bergen, Norway. During his extensive career, he has designed and implemented many courses on Java, object-oriented system development, web application development, software security, and compiler techniques. He has also given seminars for the IT industry. He is the principal author of two programming books on Java.

Rolf W. Rasmussen is a system development manager at Vizrt, a company that develops real-time graphics systems for broadcast media. Previously he worked on clean-room implementations of the Java class libraries. He is a coauthor of two programming books on Java.

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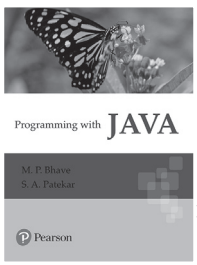


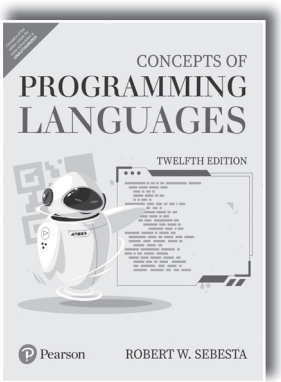
Programming with Java

M.P.Bhave /S.A.Patekar

ISBN: 9788131720806
Pages: 748

E-Book available

Web Supplements



ISBN: 9789356067417

Concepts of Programming Languages, 12/e

Robert W. Sebesta

780 | © **2023**

ABOUT THE BOOK

Concepts of Computer Programming Languages introduces students to the fundamental concepts of computer programming languages and provides them with the tools necessary to evaluate contemporary and future languages. Through a critical analysis of design issues, the text teaches students the essential differences between computing with specific languages, while the in-depth discussion of programming language structures also prepares them to study compiler design. The 12th Edition includes new material on contemporary languages like Swift and Python, replacing discussions of outdated languages.

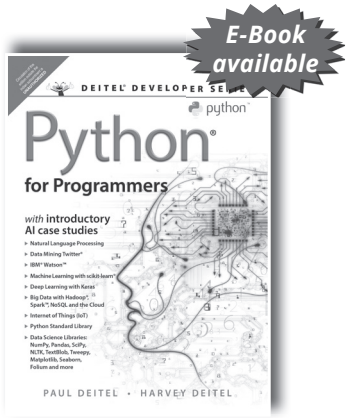
FEATURES

- Valuable historical foundations that set out the origins, purposes and contributions of the most important languages discussed in the rest of the text are introduced early on.
- In-depth discussions of the design issues faced by the early versions of relevant languages are presented in later chapters.
- Critical evaluation of existing and future programming languages gives students the necessary tools for evaluating on their own.
- An in-depth discussion of programming language structures, presenting a formal method of describing syntax and introducing approaches to lexical and syntax analysis, prepares students for the study of compiler design.
- Coverage of advanced object-oriented topics and languages is integrated throughout.

CONTENTS

ABOUT THE AUTHOR

Robert Sebesta is an Associate Professor Emeritus in the Computer Science Department at the University of Colorado, Colorado Springs. Professor Sebesta received a BS in Applied Mathematics from the University of Colorado in Boulder and MS and PhD degrees in Computer Science from Pennsylvania State University. He has taught computer science for more than 40 years. His professional interests are the design and evaluation of programming languages and Web programming.



ISBN: 9789353947989

Python for Programmers

Paul J. Deitel | Harvey M. Deitel

640 | © 2020

ABOUT THE BOOK

Written for programmers with a background in another high-level language, this book uses hands-on instruction to teach today's most compelling, leading-edge computing technologies and programming in Python—one of the world's most popular and fastest-growing languages. Please read the Table of Contents diagram inside the front cover and the Preface for more details.

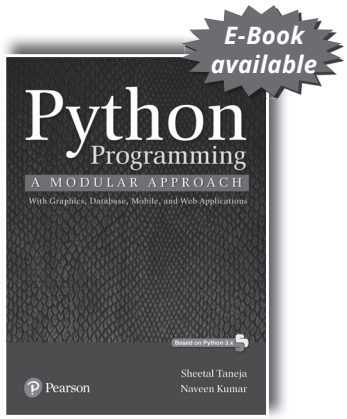
FEATURES

- 500+ hands-on, real-world, live-code examples from snippets to case studies
- IPython + code in Jupyter® Notebooks
- Library-focused: Uses Python Standard Library and data science libraries to accomplish significant tasks with minimal code
- Rich Python coverage: Control statements, functions, strings, files, JSON serialization, CSV, exceptions
- Procedural, functional-style and object-oriented programming

CONTENTS

ABOUT THE AUTHOR

Paul Deitel and **Harvey Deitel** are the founders of Deitel & Associates, Inc., the internationally recognized programming languages authoring and corporate training organization. Millions of people worldwide have used Deitel professional books, textbooks, e-books, LiveLessons video products, Safari live online training , and Revel™ interactive multimedia courses with integrated labs and assessment to master major programming languages and platforms, including Python®, Java®, C++, C, C#, Swift™, iOS, Android™ and Internet and web programming.



ISBN: 9789332585348

Python Programming

Sheetal Taneja | Naveen Kumar

606 | © 2017

ABOUT THE BOOK

Python Programming introduces one of the most rapidly evolving and preferred programming language using the concept of modularity. One of the highlights of the text is its in-depth treatment of basic concepts. Advanced topics are discussed with multiple examples of applications from various fields such as database management, web and, mobile application development.

FEATURES

- A chapter on debugging — an essential skill for making the programs work Includes basic sorting and searching techniques— selection sort, bubble sort, insertion sort, merge sort, quick sort, and linear and binary search
- Comprehensive treatment of recursion, including problems such as list manipulation, Tower of Hanoi, permutation generation, n-queens' problem, Sudoku, and plotting Hilbert curves
- Margin notes and chapter summary for quick review of the concepts

CONTENTS

ABOUT THE AUTHORS

Sheetal Taneja, University of Delhi
Naveen Kumar, University of Delhi

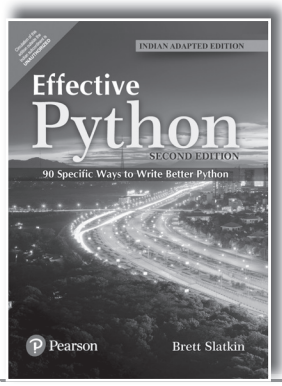
➦ ALSO AVAILABLE...

IBM PC Assembly Language and Programming, 5/e

Peter Abel

ISBN: 9789332549302
Pages: 545

Effective Python, 2/e



ISBN: 9789356061620

Brett Slatkin

424 | © **2022**

ABOUT THE BOOK

Effective Python aims to provide the reader with an understanding of the "Pythonic" way of writing programs: the best way to use Python. New programmers will learn the best practices of Python's features. Experienced programmers will learn how to embrace the strangeness of a new tool with confidence.

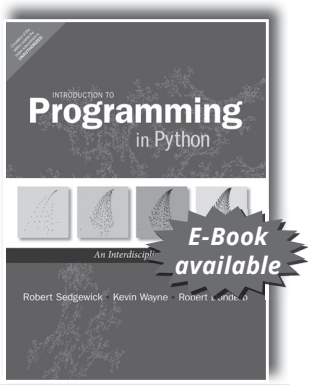
FEATURES

- Includes Python best practices, patterns, shortcuts, and "pythonic" idioms you won't find anywhere else
- Covers Python algorithms, objects, concurrency, collaboration, built-in modules, and much more
- Guides you to a far deeper understanding of the Python language, so you know why its unique idioms and rules of thumb make sense
- Follows the enormously popular "Effective" format proven in Scott Meyers' classic Effective C++

CONTENTS

ABOUT THE AUTHOR

Brett Slatkin is a principal software engineer at Google. He is the technical co-founder of Google Surveys, the co-creator of the PubSubHubbub protocol, and he launched Google's first cloud computing product (App Engine).



ISBN: 9789332577435

Introduction to Programming in Python: An Interdisciplinary Approach

Robert Sedgewick | Kevin Wayne | Robert Dondero

792 | © 2016

ABOUT THE BOOK

Introduction to Programming in Python: An Interdisciplinary Approach emphasizes interesting and important problems, not toy applications. The authors focus on Python's most useful and significant features, rather than aiming for exhaustive coverage that bores novices. All of this book's code has been crafted and tested for compatibility with both Python 2 and Python 3, making it relevant to every programmer and any course, now and for many years to come.

FEATURES

- A broad-based, applications-based approach: teaches Python through examples from science, mathematics, engineering, and commercial computing.
- Focuses on what matters most: the most useful and important Python language features.
- Teaches through code tested for compatibility with Python 2.x and Python 3.x.
- Includes question-and-answer sections, exercises, and creative exercises throughout.

CONTENTS

ABOUT THE AUTHORS

Robert Sedgewick is the William O. Baker professor of computer science at Princeton University. He has held visiting research positions at several advanced research laboratories and serves on the Adobe Systems board. He is also the coauthor (with Kevin Wayne) of Introduction to Programming in Java and Algorithms, Fourth Edition (both from Addison-Wesley).

Kevin Wayne is the Phillip Y. Goldman senior lecturer in computer science at Princeton University, where he has taught since 1998. He is an ACM Distinguished Educator and holds a Ph.D. in operations research and industrial engineering from Cornell University.

Robert Dondero is a lecturer in computer science at Princeton University. He has taught there since 2001, earning eight excellence in engineering education awards, and a lifetime achievement award for excellence in teaching. He holdsa Ph.D. in information science and technology from Drexel University.

ISBN: 9789332555365

Core Python Applications Programming, 3/e

Wesley J. Chun

800 | © **2016**

ABOUT THE BOOK

Python is an agile, robust, and expressive programming language that continues to build momentum. It combines the power of compiled languages with the simplicity and rapid development of scripting languages. This book has everything you need to become a versatile Python developer. You will be introduced to multiple areas of application development and gain knowledge that can be immediately applied to projects, and you will find code samples in both Python 2 and 3, including migration tips if that's on your roadmap too. Some snippets will even run unmodified on 2.x or 3.x.

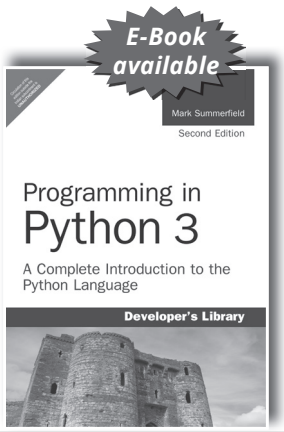
FEATURES

- Expert core features coverage, plus powerful insights for crafting complex software.
- New chapters on programming MS Office and Google App Engine.
- Dozens of professional-quality code examples.
- Easy reference tables detail modules, operators, functions, and methods.

CONTENTS

ABOUT THE AUTHOR

Wesley J. Chun has more than twenty-five years of programming, teaching, and writing experience, including more than a decade of Python. While at Yahoo!, he helped create Yahoo! Mail and Yahoo! People Search using Python. He holds degrees in computer science, mathematics, and music from the University of California. In addition to being an architect and Developer Advocate at Google, he runs CyberWeb (cyberwebconsulting.com), a consulting business specializing in Python engineering and technical training.



ISBN: 9789352869176

Programming in Python 3: A Complete Introduction to the Python Language, 2/e

Mark Summerfield

648 | © **2018**

FEATURES

- A Fully Revised Edition Featuring New Material on Coroutines, Debugging, Testing, Parsing, String Formatting, and More
- Python 3 is the best version of the language yet: It is more powerful, convenient, consistent, and expressive than ever before. Now, leading Python programmer Mark Summerfield demonstrates how to write code that takes full advantage of Python 3's features and idioms. Programming in Python 3, Second Edition, brings together all the knowledge you need to write any program, use any standard or third-party Python 3 library, and create new library modules of your own.
- Summerfield draws on his many years of Python experience to share deep insights into Python 3 development you won't find anywhere else. He begins by illuminating Python's "beautiful heart": the eight key elements of Python you need to write robust, high-performance programs. Building on these core elements, he introduces new topics designed to strengthen your practical expertise–one concept and hands-on example at a time. Coverage includes
- Developing in Python using procedural, objectoriented, and functional programming paradigms
- Creating custom packages and modules
- Writing and reading binary, text, and XML files, including optional compression, random access, and text and XML parsing
- Leveraging advanced data types, collections, control structures, and functions
- Spreading program workloads across multiple processes and threads
- Programming SQL databases and key—value DBM files
- Debugging techniques–and using Test Driven Development to avoid bugs in the first place
- Utilizing Python's regular expression mini-language and module
- Parsing techniques, including how to use the third-party PyParsing and PLY modules
- Building usable, efficient, GUI-based applications
- Advanced programming techniques, including generators, function and class decorators, context managers, descriptors, abstract base classes, metaclasses, coroutines, and more

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ABOUT THE AUTHOR

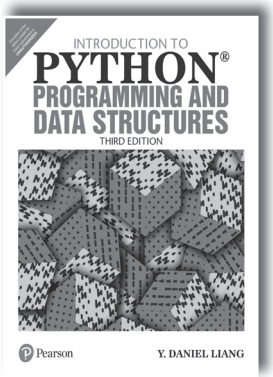
Mark Summerfield, owner of Qtrac Ltd., is an independent trainer, consultant, technical editor, and writer specializing in Python, C++, Qt, and PyQt. His books include Rapid GUI Programming with Python and Qt: The Definitive Guide to PyQt Programming (Addison-Wesley, 2008) and, cowritten with Jasmin Blanchette, C++ GUI Programming with Qt 4 (Addison-Wesley, 2006). As Trolltech's documentation manager, Mark founded and edited Trolltech's technical journal, Qt Quarterly.

➦ ALSO AVAILABLE...

Programming Languages: Concepts & Constructs, 2/e

Ravi Sethi

ISBN: 9788177584226
Pages: 496



ISBN: 9789357055284

Introduction to Python Programming and Data Structures, 3/e

Y Daniel Liang

800 | © **2023**

ABOUT THE BOOK

"Introduction to Python Programming and Data Structures focuses on the fundamentals first to help learners learn problem solving and programming in a broad context. It introduces basic programming concepts and techniques on selections, loops and functions, before writing custom classes. Step-by-step coverage demonstrates the use of Python to solve problems. Exercises and problems with varying levels of difficulty cover interesting application areas. The best way to learn programming is by practicing, and this introduction offers many opportunities to practice creating efficient, elegant code. The 3rd Edition has new data structures topics and up-to-date content, examples and exercises that keep pace with recent trends."

FEATURES

- A problem-driven, fundamentals-first approach focuses on problem solving rather than syntax.
- The step-by-step presentation starts at the beginning, teaching basic concepts and techniques before writing custom classes. Topics flow from fundamentals to object-oriented programming, from simple functions to STL, and from simple data types to classic structures.
- Programming exercises are grouped by level of difficulty to give students many opportunities to practice and apply their skills
- Engaging examples and problems provide interesting context for learning concepts. Examples are drawn from math, science, business, finance, gaming, animation and multimedia to make the material more relatable.

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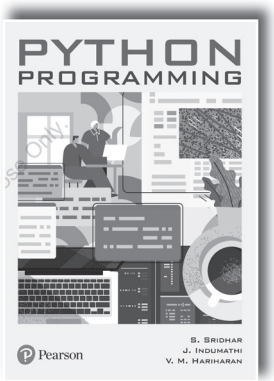
ABOUT THE AUTHORS

Y Daniel Liang, Georgia Southern University.

Python Programming



S. Sridhar | J. Indumathi | V. M. Hariharan

704 | © **2023**

ISBN: 9789356069336

ABOUT THE BOOK

Python Programming is designed as a textbook for undergraduate and postgraduate students to provide programming knowledge and enhance problem-solving skills. The book begins with the basics of Python programming followed by the basics of algorithms and further focuses on topics like introduction to programming language, looping, functions, and data structures like lists, tuples, sets, dictionary, and strings. It covers both functional programming concepts such as higher-order functions an object-oriented programming concepts such as inheritance and polymorphism.

FEATURES

- Coverages computational thinking, algorithm writing, algorithm analysis, and data structures such as lists, tuples, sets, dictionaries, strings, stacks, and queues.
- Explains advanced topics such as debugging, testing, profiling, databases like SQLite, network, and optimization techniques
- Discusses important topics like context manager, Multi threading, Socket programming, cryptography, ethics of programming, and web scrappers.
- Provides real-world examples as case studies
- Includes Python packages such as os, sys, sympy, math, pycompile, pickle, tkinter, turtle, cython.
- Special focus on Python tools: doctest, pytest, unitest, cProfile, timeit, Pdb, Numpy, Pandas, Matplotlib and Scikit-learn, Sqlite, beautifulsoup.

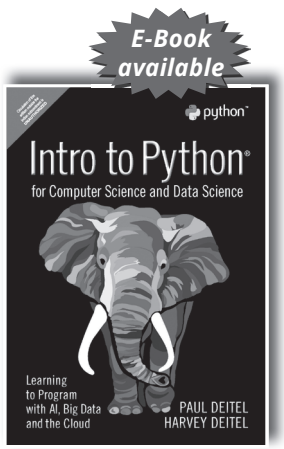
CONTENTS

ABOUT THE AUTHORS

S. Sridhar, Department of Information Science and Technology, CEG Campus, Anna University, Chennai

J. Indumathi, Department of Information Science and Technology, CEG Campus, Anna University, Chennai

V. M. Hariharan, Vels Infoway, Chennai



ISBN: 9789353949518

Intro to Python for Computer Science and Data Science: Learning to Program with AI, Big Data and The Cloud

Paul J. Deitel | Harvey M. Deitel

884 | © 2022

ABOUT THE BOOK

Introduction to Python for Computer Science and Data Science takes a unique, modular approach to teaching and learning introductory Python programming that is relevant for both computer science and data science audiences. The Deitels cover the most current topics and applications to prepare you for your career. Jupyter Notebooks supplements provide opportunities to test your programming skills. Fully implemented case studies in artificial intelligence technologies and big data let you apply your knowledge to interesting projects in the business, industry, government and academia sectors. Hundreds of hands-on examples, exercises and projects offer a challenging and entertaining introduction to Python and data science.

FEATURES

- Prepares students for future careers with the most current and relevant real-world applications
- hands-on, real-world case studies
- artificial-intelligence technologies
- Helps instructors adapt to a range of computer-science and data-science courses with the flexible modular architecture

CONTENTS

Part 1

CS: Python Fundamentals Quickstart
CS 1. Introduction to Computers and Python
DS Intro: AI–at the Intersection of CS and DS
CS 2. Introduction to Python Programming
DS Intro: Basic Descriptive Stats
CS 3. Control Statements and Program Development
DS Intro: Measures of Central Tendency—Mean, Median, Mode
CS 4. Functions
DS Intro: Basic Statistics— Measures of Dispersion
CS 5. Lists and Tuples
DS Intro: Simulation and Static Visualization

Part 2

CS: Python Data Structures, Strings and Files
CS 6. Dictionaries and Sets
DS Intro: Simulation and Dynamic Visualization
CS 7. Array-Oriented Programming with NumPy, High-Performance NumPy Arrays
DS Intro: Pandas Series and DataFrames
CS 8. Strings: A Deeper Look Includes Regular Expressions
DS Intro: Pandas, Regular Expressions and Data Wrangling
CS 9. Files and Exceptions
DS Intro: Loading Datasets from CSV Files into Pandas DataFrames

Part 3

CS: Python High-End Topics
CS 10. Object-Oriented Programming
DS Intro: Time Series and Simple Linear Regression
CS 11. Computer Science Thinking: Recursion, Searching, Sorting and Big O
CS and DS Other Topics Blog

Part 4

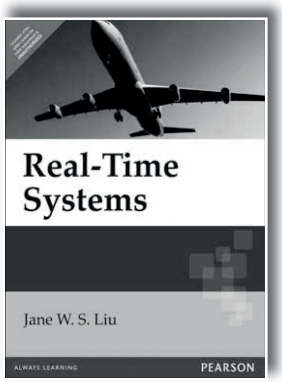
AI, Big Data and Cloud Case Studies
DS 12. Natural Language Processing (NLP), Web Scraping in the Exercises
DS 13. Data Mining Twitter®: Sentiment Analysis, JSON and Web Services
DS 14. IBM Watson® and Cognitive Computing
DS 15. Machine Learning: Classification, Regression and Clustering
DS 16. Deep Learning Convolutional and Recurrent Neural Networks; Reinforcement Learning in the Exercises
DS 17. Big Data: Hadoop®, Spark™, NoSQL and IoT

ABOUT THE AUTHOR

Paul J. Deitel, CEO and Chief Technical Officer of Deitel & Associates, Inc., is an MIT graduate with 38 years of computing and corporate training experience and is an Oracle® Java® Champion and a Microsoft® C# MVP (2012-2014). He is

a best-selling programming-language textbook/professional book/video/e-learning author. Paul is one of the world's most experienced programming-languages trainers. Through Deitel & Associates, Inc., he has delivered hundreds of programming courses worldwide to clients, including Cisco, IBM, Siemens, Sun Microsystems (now Oracle), Dell, Fidelity, NASA at the Kennedy Space Center, the National Severe Storm Laboratory, White Sands Missile Range, Rogue Wave Software, Boeing, SunGard Higher Education, Nortel Networks, Puma, iRobot, Invensys and many more. He and his co-author, Dr. Harvey M. Deitel, are the world's best-selling programming-language textbook/professional book/video authors.

Dr. Harvey M. Deitel, Chairman and Chief Strategy Officer of Deitel & Associates, Inc., has over 55 years of experience in computing. Dr. Deitel earned B.S. and M.S. degrees in Electrical Engineering from MIT and a Ph.D. in Mathematics from Boston University–he studied computing in each of these programs just before they spun off Computer Science programs. He has extensive college teaching experience, including earning tenure and serving as the Chairman of the Computer Science Department at Boston College before founding Deitel & Associates, Inc., in 1991 with his son, Paul. The Deitels' publications have earned international recognition, with more than 100 translations published in Japanese, German, Russian, Spanish, French, Polish, Italian, Simplified Chinese, Traditional Chinese, Korean, Portuguese, Greek, Urdu and Turkish. Dr. Deitel has delivered hundreds of programming courses to academic, corporate, government and military clients.



ISBN: 9788177585759

Real-Time Systems

Jane W. S. Liu

624 | © 2005

Web Supplements

ABOUT THE BOOK

Written by a renowned expert, ***Real-Time System*** provides professionals and students with a comprehensive treatment of real-time computing and communication systems. The book covers the most recent advances in real-time operating systems and communications networks. Thus, this book serves as a vehicle for technology transition within the real-time system community of systems architects, designers chief scientists and technologists, and systems analysts. Jane Liu's subject mater and adept treatment provides an engaging learning environment for students as well. With real-time systems, the technologies at play include telecommunication, signal processing, command and control, and digital control. Their applications have particular relevance to day-to-day operations, such as engine and break mechanisms in cars, traffic light operations, flight control and air-traffic control and heartbeat and blood pressure monitoring. This text describes not only how, but also why, through insightful illustrative examples. Real-Time Systems is both a valuable reference for professionals and an advanced text for Computer Science and Computer Engineering students.

FEATURES

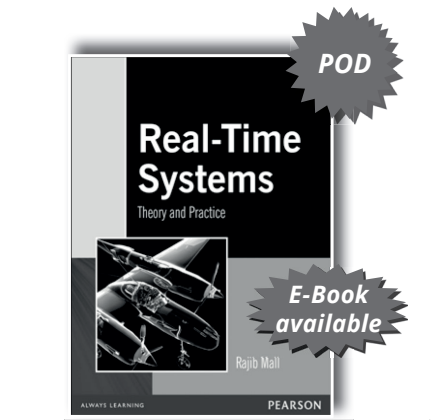
- Real world real-time applications based on research and practice.
- State-of-the-art algorithms and methods for validation
- Methods for end-to-end scheduling and resource management.
- More than 100 illustrations to enhance understanding.
- Comprehensive treatment of the technology known as RMA (rate-monotonic analysis) method.
- A supplemental Companion Website www.prenhall.com/liu the chapters.

CONTENTS

1. Typical Real-Time Applications
2. Hard Versus Soft Real-Time Systems
3. A Reference Model of Real-Time Systems
4. Commonly Used Approaches to Real-Time Scheduling
5. Clock Driven Scheduling
6. Priority-Driven Scheduling of Periodic Tasks
7. Scheduling Aperiodic and Sporadic Jobs in Priority-Driven Systems
8. Resources and Resource Access Control
9. Multiprocessor Scheduling, Resources Access Control, and Synchronization
10. Scheduling Flexible Computations and Tasks with Temporal Distance Constraints
11. Real-Time Communication
12. Operating Systems

ABOUT THE AUTHOR

Jane W.S. Liu received her M.S. And Sc.D. in Electrical Engineering from Massachusetts Institute of Technology, before joining the University of Illinois, where she currently teaches, Jane worked with industry. She serves on numerous program committees and on symposia and workshops on real-time systems. She is currently a member of ACM and a Fellow of IEEE. Dr. Liu's current research is concerned with the means to provide an open environment to real-time applications.



ISBN: 9788131700693

Real-Time Systems: Theory and Practice

Rajib Mall

242 | © 2006

Web Supplements

ABOUT THE BOOK

Although real-time systems are becoming increasingly important they are often so embedded that we fail to notice them even while interacting with them. An important characteristic of real-time systems is that their correctness is time- dependent. Examples of such systems range from safety-critical ones, such as nuclear reactors and automotive controllers, to entertainment software such as games and graphics animations. The growing importance of real-time systems has made it a core area for computer science, electronics and communication, as well as electrical engineering students. This book is designed to serve as a textbook for both graduate and post-graduate level courses on real-time systems. It can also serve as a reference for practising engineers.

FEATURES

- Thorough coverage of real-time databases, operating systems and communications.
- Concepts explained through real-life applications.
- Numerous worked-out examples and practice problems.

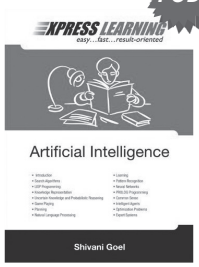
CONTENTS

1. Introduction
2. Real-Time Task Scheduling
3. Handling Resource Sharing and Dependencies among Rael-Time Tasks
4. Scheduling Real-Time Tasks in Multiprocessor and Distributed Systems
5. Commercial Real-Time Operating Systems
6. Real-Time Communication
7. Real-Time Databases

ABOUT THE AUTHOR

Rajib Mall received his BE, ME, and Ph.D. from the Indian Institute of Science Bangalore. He has worked in a number of industries dealing with real-time system applications. He joined the faculty of the Department of Computer Science and Engineering at the Indian Institute of Technology Kharagpur in 1994, where he is now Professor. His research interests are software engineering, real-time systems, and sensor networks, in which fields he has published more than one hundred refereed papers.

EXPRESS LEARNING



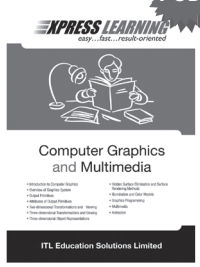
POD

Artificial Intelligence

Shivani Goel

ISBN: 9788131787472
Pages: 296

E-Book available



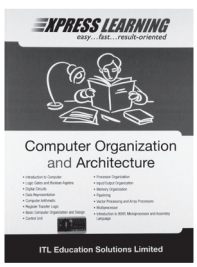
POD

Computer Graphics and Multimedia

ITL Education Solutions Limited

ISBN: 9788131785911
Pages: 288

E-Book available

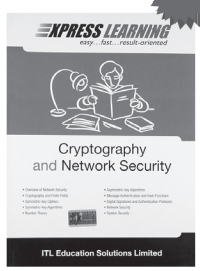


Computer Organization and Architecture

ITL Education Solutions Limited

ISBN: 9788131773390
Pages: 312

E-Book available



POD

Cryptography and Network Security

ITL Education Solutions Limited

ISBN: 9788131764527
Pages: 196

E-Book available

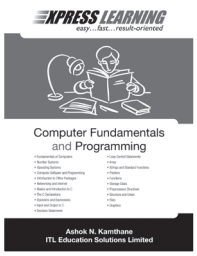
POD

Digital Electronics and Logic Design

ITL Education Solutions Limited

ISBN: 9788131787045
Pages: 336

E-Book available

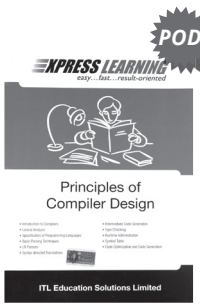


Computer Fundamentals and Programming

Ashok N.Kamthane

ISBN: 9788131794791
Pages: 464

E-Book available

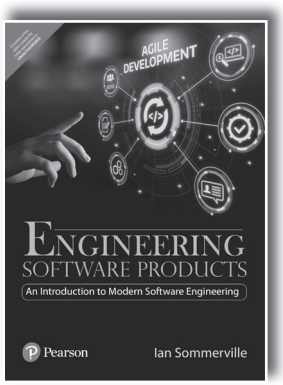


Principles of Compiler Design

ITL Education Solutions Limited

ISBN: 9788131761267
Pages: 184

E-Book available



ISBN: 9789353949471

Engineering Software Products: An Introduction to Modern Software Engineering

Ian Sommerville

356 | © **2020**

ABOUT THE BOOK

With Engineering Software Products, author Ian Sommerville takes a unique approach to teaching software engineering and focuses on the type of software products and apps that are familiar to students, rather than focusing on project-based techniques. Topics covered include personas and scenarios, cloud-based software, microservices, security and privacy and DevOps. The text is designed for students taking their first course in software engineering with experience in programming using a modern programming language such as Java, Python or Ruby.

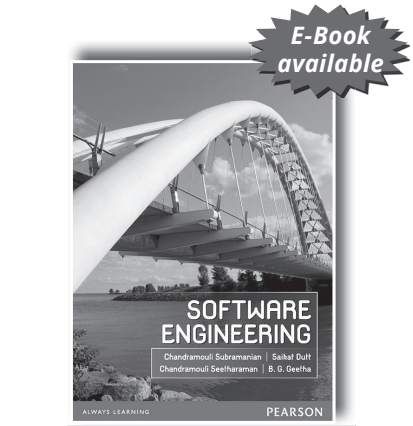
FEATURES

- Covers methods and techniques that are used in the development of off-the-shelf, software products.
- Current topics—Cloud computing, microservices, security and privacy, and DevOps — are covered that are not discussed in other software engineering texts.
- The book is written in an informal style with many illustrative examples, diagrams and tables, key points and exercises for each chapter.

CONTENTS

ABOUT THE AUTHOR

Ian Sommerville is Emeritus Professor of Computer Science at St Andrews University, Scotland. He has a BSc in Physics from Strathclyde University and MSc and PhD degrees in Computer Science from St Andrews University. He has been a full Professor of Computer Science since 1986 firstly, at Lancaster University, and, subsequently, at St Andrews University. He has written several software engineering textbooks, including 'Software Engineering', now in its 10th edition, which has been in print since 1982. In 2011, he was awarded both the IEEE TCSE Distinguished Educator award and the ACM SIGSOFT Influential Educator award. He wrote his first computer program in 1970 and, almost 50 years later, still enjoys programming.



ISBN: 9789332537293

Software Engineering

Saikat Dutt | Chandramouli Subramanian | Chandramouli Seetharaman | Dr. B. G Geetha

672 | © 2015

ABOUT THE BOOK

This book addresses basic and advanced concepts in software engineering and is intended as a textbook for an undergraduate-level engineering course. In addition to covering important concepts in software engineering, this book also addresses the perspective of decreasing the overall effort of writing quality software. It covers the entire spectrum of the software engineering life cycle starting from the requirement analysis until the implementation and maintenance of the project.

FEATURES

- Covers important software engineering topics with a special focus
- Covers important software engineering topics with a special focus on Software Testing, Software Project Management and Agile Concepts
- Features such as Discussion Points and Points to Ponder help in clarifying concepts and promoting critical thinking
- Includes five case studies on software engineering practices
- Includes a model solved question paper
- Includes more than 700 exercise and examples

CONTENTS

ABOUT THE AUTHOR(S)

S. Chandramouli, Senior Manager in Cognizant Technology Solutions, Chennai
Saikat Dutt, Director in Cognizant Technology Solutions, Kolkata
Chandramouli Seetharaman is currently the Founder-Director of CATALYSTS
B. G. Geetha, Professor and Head, Department of Computer Science, K. S. Rangasamy College of Technology, Tiruchengode

ISBN: 9789332582699

Software Engineering, 10/e

Ian Sommerville

808 | © **2017**

ABOUT THE BOOK

Pearson's best selling title on software engineering has be thoroughly revised to highlight various technological updates of recent years, providing students with highly relevant and current information. Sommerville's experience in system dependability and systems engineering guides the text through a traditional plan-based approach that incorporates some novel agile methods. The text strives to teach the innovators of tomorrow how to create software that will make our world a better, safer, and more advanced place to live.

FEATURES

- Chapters on resilience engineering, systems engineering, and systems of systems have been added to the text.
- The core structure of the text has been significantly altered to include relevant information on agile methods.
- The text covers the latest key developments in software engineering - particularly providing information on Scrum, RESTful, distributed version control systems.

CONTENTS

ABOUT THE AUTHOR

Ian Sommerville, University of St Andrews, Scotland

ISBN: 9789332542143

Software Project Management

Subramanian Chandramouli | Saikat Dutt

520 | © 2015

ABOUT THE BOOK

Software Project Management is a comprehensive textbook designed for the students of Computer Science and Information Technology. All the topics are explained with a large number of practical examples and case studies.

FEATURES

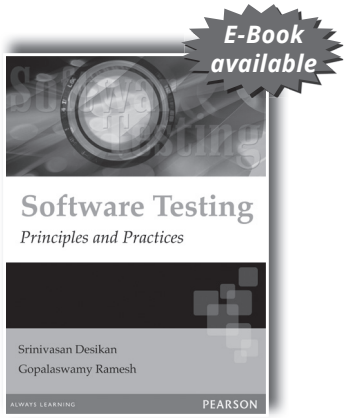
- Practical approach used to explain the subject
- Based on the widely accepted Project Management Body of Knowledge (PMBOK®) guidelines
- Exclusive chapter on Agile Methodology
- Case studies discussed online

CONTENTS

ABOUT THE AUTHOR(S)

S.Chandramouli PMP, PMI ACP is an alumnus of the Indian Institute of Management, Kozhikode (IIM-K), and a prolific writer of business management articles dealing with delivery management, competitiveness, IT, organizational culture and leadership. He was an active member in PMI OPM3 and PMCDF project works. He is a certified "Green Belt" in six sigma methodology and is also ITIL (F) Certified. He is actively associated with academia & various research professional bodies in India.

Saikat Dutt is 'Project Management Professional (PMP)' and 'PMI Agile Certified Professional' certified by Project Management Institute (PMI) USA and a Certified Scrum Master (CSM). Saikat has more than Seventeen years of IT industry experience and has expertise in managing large scale multi-location and mission critical projects.



ISBN: 9788177581218

Software Testing: Principles and Practices

Srinivasan Desikan | Gopalaswamy Ramesh

480 | © 2006

Web Supplements

ABOUT THE BOOK

Software Testing: Principles and Practices is a comprehensive treatise on software testing. It provides a pragmatic view of testing, addressing emerging areas like extreme testing and ad hoc testing

FEATURES

- Focuses on geographically distributed teams. Software Testing addresses people, orgizational structures and models for global teams.
- Showcases India's rich experience in testing. An increase amount of product testing is being done in India. However, not many books examine this experience or the India Business Model. This book showcases the best of these practices.
- Emphasizes pratical experience while retaining comprehensive theoretical rigor. This book addresses pratical aspects of testing like internationalization and regression testing while preserving traditional approaches like equivalence pratitioning and cyclomatic complexity.

CONTENTS

ABOUT THE AUTHOR(S)

Srinivasan Desikan is Senior Systems Architect at HP, System Technology and Software Division (STSD), Bangalore, India, and has worked as Director of Quality Assurance and Testing at Talisma, Siebel and Agile Software. He has contributed to several technical and management positions at Novell Inc, Wipro Infotech, and C-DOT and was part of large testing and product development teams. He has been in the field of testing since 1989 and some of those products enjoyed several million customers worldwide. He is well known to the testing community around the world and has vast experience in test automation, test management, test processes, test lab maintainance and in setting up test teams from scratch. He presented papers on testing in the international testing conferences such as QAI-India, ASIAS-TAR-2002 (Melbourne), PSQT/PSTT-2003 (Washington), SPIN (Chennai) and STeP-IN (Bangalore).

Gopalaswamy Ramesh is an independent consultant and an adjunct professor at Loyola Institute of Business Management, SSN School of Management and Computer Applications, Great Lakes Institute of Management in Chennai and International Institute of Information Technology, Bangalore. He has over 25 years of industry experience in India and abroad, and has held various technical and management positions. He started his career with Tata Burroughs Limited (now Tata Infotech), working in UK and then moved to Far East Computers, Singapore, heading pre-sales and post-sales operations for Oracle products in the ASEAN region in the early 1980s. While at Singapore, he was instrumental in launching Oracle in ASEAN countries, including China, before moving over to Oracle's headquarters in California. In India, he played a key role in starting Oracle's India Development Center (IDC) from scratch, and has contributed to its growth and development. He is the author of the best-selling, national-award-winning,Managing Global Software Projects,which was translated into Chinese.

ISBN: 9789332543652

Software Testing

Hema Khurana

422 | © **2015**

ABOUT THE BOOK

This book dispels such myths with a systematic approach starting from definitions, static testing and reviews, dynamic testing (Orthogonal Array Technique and MC/DC Coverage included), testing throughout the lifecycle and management of testing projects illustrated with numerous examples, multiple choice questions and exercises

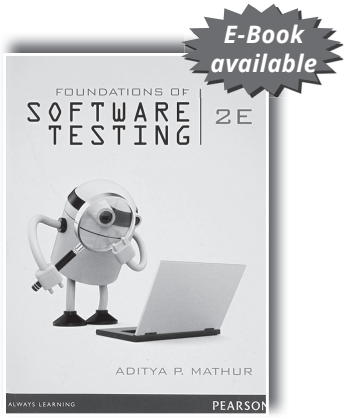
FEATURES

- Covers a chapter on Standards relevant to software testing (Software lifecycle Standard ISO12207, Software testing Standard ISO29119 and other product standards relating to safety and usability).
- Describes 4 case studies on the application of Standards and methods to non- functional testing such as usability, reliability and safety besides a case study on bench marking software products based on their quality characteristics
- It covers Dynamic Testing in detail with relevant examples
- A chapter on Test Management new concepts like Use case based test effort estimation, People issues in software testing an Test laboratory accreditation
- Includes around 150 exercises(Objectives and real time exercises)

CONTENTS

ABOUT THE AUTHOR

Hema Khurana was Head of Bangalore, Centre of Electronics Testing and Development Centre under the Department of Electronics and Information Technology, Government of India



ISBN: 9788131794760

Foundations of Software Testing, 2/e

Aditya P Mathur

728 | © **2013**

ABOUT THE BOOK

The Second Edition of ***Foundations of Software Testing*** is aimed at the undergraduate, the graduate students and the practicing engineers.
It presents sound engineering approaches for test generation, ion, minimization, assessment, and enhancement. Using numerous examples, it offers a lucid description of a wide range of simple to complex techniques for a variety of testing-related tasks. It also discusses the comparative analyses of commercially available testing tools to facilitate the tool ion.

FEATURES

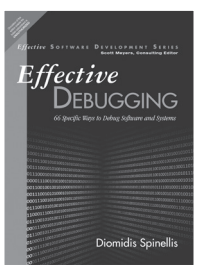
- Mathematical and algorithmic approach followed to describe a wide range of simple to complex techniques for test generation.
- Detailed treatment of topics such as test generation from finite state models, combinatorial designs and test selection and minimization for regression testing.
- Test adequacy assessment using criteria mandated by the FAA and other agencies; data-flow based adequacy and mutation-based adequacy which are the most powerful of the available test adequacy criteria.
- Step-by-step algorithms to generate tests.
- Comparative analyses of commercially available testing tools to facilitate tool selection.

CONTENTS

ABOUT THE AUTHOR

Aditya Mathur is a Professor of Computer Science at Purdue University, West Lafayette, Indiana, USA and also the Head of Pillar Information Systems Technology and Design at the Singapore University of Technology and Design. He is a founding member of the Department of Computer Science at the Birla Institute of Technology and Science, Pilani.

➦ ALSO AVAILABLE...

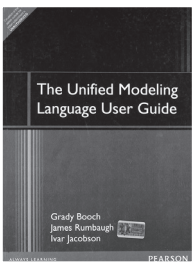


Effective Debugging: 66 Specific Ways to Debug Software and Systems

Diomidis Spinellis

ISBN: 9789352866588
Pages: 256

➦ **ALSO AVAILABLE...**

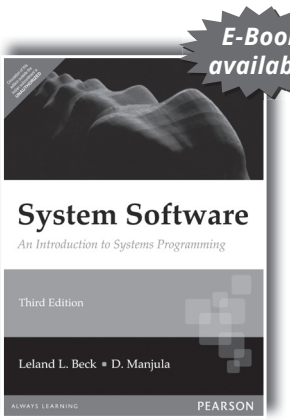


The Unified Modeling Language User Guide

Grady Booch /James Rumbaugh /Ivar Jacobson

ISBN: 9788177583724
Pages: 512

E-Book available



E-Book available

ISBN: 9788177585551

System Software: An Introduction to Systems Programming, 3/e

Leland L. Beck

512 | © **2006**

ABOUT THE BOOK

In this third edition of his classic title, Leland Beck provides a complete introduction to the design and implementation of various types of system software. A core text for undergraduate/graduate software students, it stresses on the relationship between system software and the architecture of the machine it is designed to support, presenting the fundamental concepts of each type of software lucidly.

FEATURES

- Updated architecture & Software examples, including the Intel x86 family, IBM PowerPC, Sun SPARC, CRAY T3E
- Introduction to object-oriented programming & design
- New material on finite automata & shift-reduce parsing
- Exercises at the end of each chapter

CONTENTS

1. Background
2. Assemblers
3. Loaders and Linkers
4. Macro Processors
5. Compilers
6. Operating Systems
7. Other System Software
8. Software Engineering Issues

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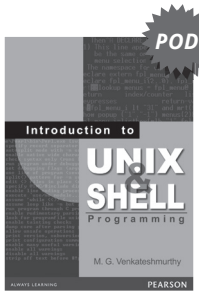
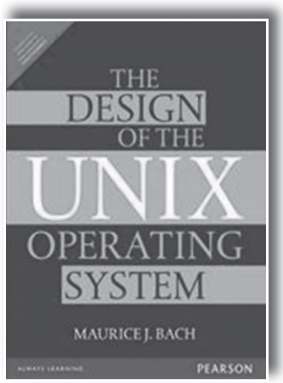


Introduction to Unix and Shell Programming

M.G.Venkateshmurthy

ISBN: 9788177587456
Pages: 392

E-Book available



ISBN: 9789332549579

Design of the UNIX Operating System

Maurice J. Bach

486 | © **2015**

ABOUT THE BOOK

This book describes the internal algorithms and the structures that form the basis of the UNIX® operating system and their relationship to the programmer interface. The system description is based on UNIX System V Release 2 supported by AT&T, with some features from Release 3.

FEATURES

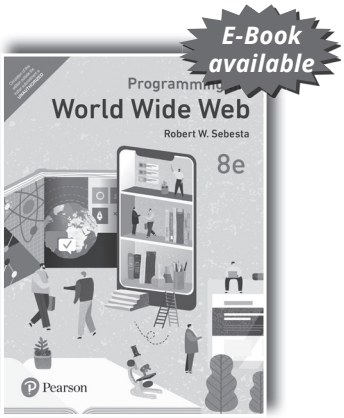
- Presents algorithms in a C-like pseudocode to aid readers in understanding the natural language description.
- Uses figures to depict the relationships between various data structures s they system manipulates them.
- Contains short C programs illustrating many system concepts as they manifest themselves to users.
- Describes the outline of the kernel architecture
- Explains tightly couples multiprocessor UNIX systems

CONTENTS

1. General Review of the System.
2. Introduction to the Kernel.
3. The Buffer Cache.
4. Internal Representation of Files.
5. System Calls for the File System.
6. The System Representation of Processes.
7. Process Control.
8. Process Scheduling and Time.
9. Memory Management Policies.
10. Interprocess Communication.
11. Multiprocessor Systems.
12. Distributed UNIX System.

ABOUT THE AUTHOR

Maurice J. Bach, AT&T Bell Labs.



ISBN: 9789353946142

Programming World Wide Web

Robert W. Sebesta

736 | © **2020**

ABOUT THE BOOK

Programming the World Wide Web provides a comprehensive introduction to the tools and skills required for both client and server-side programming, teaching students how to develop platform-independent sites using the most current web development technology. Essential programming exercises are presented using a manageable progression: students begin with a foundational web site and employ new languages and technologies to add features as they are discussed in the course. Readers with previous experience programming with an object-oriented language are guided through concepts relating to client-side and server-side programming. All of the markup documents in the book are validated using the W3C validation program.

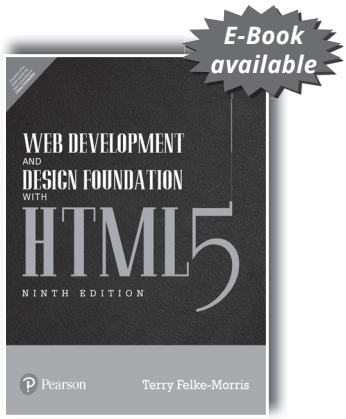
FEATURES

- The book introduces learners how to develop platform-independent sites: Students will benefit from a comprehensive introduction to the tools and skills required for both client and server-side programming. o Client-side technology is covered using HTML, XHTML, CSS and JavaScript o Server-side technology is covered using Flash, PHP, Ajax, Java web soft ware, ASP.NET, Ruby, database access through the web, Android, and Rails.
- It presents essential programming exercises in a logical progression: Students begin with a foundational web site and employ new languages and technologies to add features as they are discussed in the course.

CONTENTS

ABOUT THE AUTHOR

Robert W. Sebesta is an Associate Professor Emeritus of computer science at the University of Colorado at Colorado Springs. He received his PhD in computer science from Pennsylvania State University. His professional interests are the design and evaluation of programming languages, compiler design, and software-testing methods and tools. He is the author of Concepts of Programming Languages, 10e.



ISBN: 9789353438821

Web Development and Design Foundations with HTML5, 9/e

Terry Felke-Morris

716 | © **2019**

ABOUT THE BOOK

Web Development and Design Foundations with HTML5 introduces HTML and CSS topics such as text configuration, color configuration, and page layout, with an enhanced focus on the topics of design, accessibility, and Web standards. The text relates both the necessary hard skills (such as HTML5, CSS, and JavaScript) and soft skills (design, e-commerce, and promotion strategies) considered fundamental to contemporary web development. An emphasis on hands-on practice provides a well-rounded foundation to help students as they pursue careers as web professionals. The updated and expanded **9th Edition** contains current coverage of HTML5 and HTML5.1, expanded coverage of designing for mobile devices, and more.

FEATURES

- The well-rounded selection of topics
- An emphasis on hands-on practice
- Coverage of HTML5 and HTML5.1
- An introduction to CSS Grid Layout
- Reference sections for HTML5 and CSS
- Ongoing website case studies

CONTENTS

ABOUT THE AUTHOR

Terry Ann Felke-Morris is a Professor Emerita of Computer Information Systems at William Rainey Harper College in Palatine, Illinois. She holds a Doctor of Education degree, a Master of Science degree in information systems, and numerous certifications.

ISBN: 9789332575271

Fundamentals of Web Development

Randy Connolly | Ricardo Hoar

1,024 | © 2016

ABOUT THE BOOK

Fundamentals of Web Development covers the broad range of topics required for modern web development (both client- and server-side) and is appropriate for students who have taken a CS1 course sequence.

The book guides students through the creation of enterprise-quality websites using current development frameworks, its comprehensive coverage of a modern internet development platform includes HTML5, CSS3, Javascript, and the LAMP stack (that is, Linux, Apache, MySQL, and PHP). Other important technologies covered include jQuery, XML, WordPress, Bootstrap, and a variety of third-party APIs that include Facebook, Twitter, and Google and Bing Maps. Coverage also includes the required ACM web development topics in a modern manner closely aligned with best practices in the real world of web development.

Teaching and Learning Experience

Help students master the fundamentals of web development: A true grasp of web development requires an understanding of both the foundations of the web and current web development practices.

Support learning outcomes in various teaching scenario: This book allows instructors to chart their own unique way through the topics that make up contemporary web development.

FEATURES

- Covers both the concepts and the practice of the entire scope of web development. Web development can be a difficult subject to teach because it involves covering a wide range of theoretical material that is technology independent as well as practical material that is very specific to a particular technology. This book comprehensively covers both the conceptual and practical side of the entire gamut of the web development world.
- Focused on the web development reality of today's world and in anticipation of future trends. The world of web development has changed remarkably in the past decade. For instance, fewer sites are being created from scratch; instead, a great deal of current web development makes use of existing sophisticated frameworks and environments such as jQuery, WordPress, HTML5, and Facebook. It is important to integrate this new world of web development into any web development textbook.
- Sophisticated, realistic, and engaging case studies. Rather than using simplistic ""Hello World"" style web projects, this book makes extensive use of three case studies: an art store, a travel photo sharing community, and a customer relations management system. For all the case studies, supporting material such as the business cases, use cases, design documentation, visual design, images, and databases are included. The authors have found that students are more enthusiastic and thus work significantly harder with attractive and realistic cases.
- Comprehensive coverage of a modern internet development platform. In order to create any kind of realistic internet application, readers require detailed knowledge of and practice with a single specific internet development platform. This book covers HTML5, CSS3, Javascript, and the LAMP stack (that is, Linux, Apache, MySQL, and PHP). Other important technologies covered include jQuery, XML, WordPress, Bootstrap, and a variety of third party APIs that include Facebook, Twitter, and Google and Bing Maps.
- Content presentation suitable for visually- oriented learners. As long time instructors, the authors are well aware that today's students are often extremely reluctant to read long blocks of text. As a result, they have tried to make the content visually pleasing and to explain complicated ideas not only through text but also through diagrams.
- Content that is the result of over twenty years of classroom experience (in college, university, and adult continuing education settings) teaching web development. The book's content also reflects the authors' deep experience engaging in web development work for a variety of international clients.
- Tutorial- driven programming content available online. Rather than using long programming listings to teach ideas and techniques, this book uses a combination of illustrations, short color coded listings and separate tutorial exercises. These step by step tutorials are not contained within the book, but are available online to owners of the book.

CONTENTS

ABOUT THE AUTHOR

Randy Connolly, Ricardo Hoar

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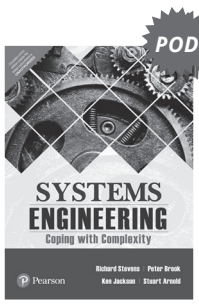
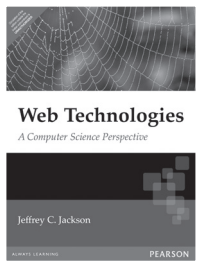


System Engineering

Stevens/Brook/Jackson/Arnold

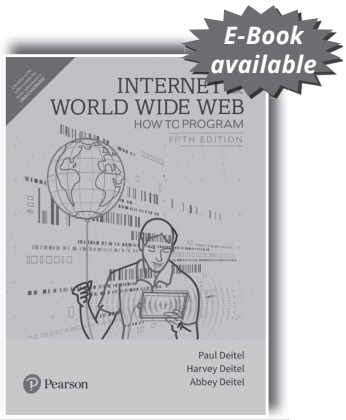
ISBN: 9789332552616
Pages: 392



Web Technologies

Jeffrey C. Jackson

ISBN: 9788131717158
Pages: 592



ISBN: 9789352868599

Internet and World Wide Web How to Program, 5/e

Harvey M. Deitel | Paul J. Deitel | Abbey Deitel

968 | © 2018

ABOUT THE BOOK

Internet and World Wide Web How to Program, 5e introduces students with little or no programming experience to the exciting world of Web-Based applications. The book has been substantially revised to reflect today's Web 2.0 rich Internet application-development methodologies. A comprehensive book that teaches the fundamentals needed to program on the Internet, this text provides in-depth coverage of introductory programming principles, various markup languages (XHTML, Dynamic HTML and XML), several scripting languages (JavaScript, PHP, Ruby/Ruby on Rails and Perl); AJAX, web services, Web Servers (IIS and Apache) and relational databases (MySQL/Apache Derby/Java DB)—all the skills and tools needed to create dynamic Web-based applications.

FEATURES

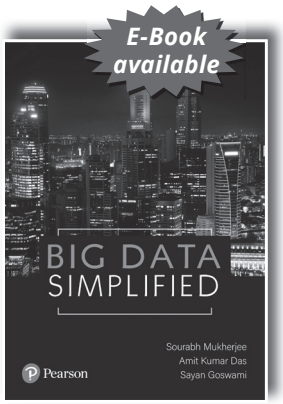
- Language features are presented in the context of complete working programs.
- Features thousands of lines of code in hundreds of complete working programs.
- Enables students to confirm that programs run as expected.
- Icons throughout identify hundreds of Software Engineering Observations; Good Programming Practices; Common Programming Errors; Portability Tips; Performance Tips, Testing and Debugging Tips, and Look-and-Feel Observations.
- Provides hundreds of valuable programming tips and facilitates learning.
- Extensive set of interesting exercises and substantial projects that enables students to apply what they've learned in each chapter.

CONTENT

ABOUT THE AUTHOR(S)

Paul Deitel, CEO and Chief Technical Officer of Deitel & Associates, Inc., has over 30 years of experience in computing. He is a graduate of MIT, where he studied Information Technology. He holds the Java Certified Programmer and Java Certified Developer designations and is an Oracle Java Champion. He and his co-author, Dr. Harvey Deitel, are the world's best-selling programming-language textbook/ professional book/video authors.

Harvey Deitel, Chairman and Chief Strategy Officer of Deitel & Associates, Inc., has over 50 years of experience in the computer field. Dr. Deitel earned B.S. and M.S. degrees in Electrical Engineering from MIT and a Ph.D. in Mathematics from Boston University–he studied computing in each of these programs before they spun off Computer Science programs.



ISBN: 9789353435110

Big Data Simplified

Sourabh Mukherjee | Amit Kumar Das | Sayan Goswami

360 | © 2019

ABOUT THE BOOK

Big Data Simplified blends technology with strategy and delves into applications of big data in specialised areas, such as recommendation engines, data science and Internet of Things (IoT) and enables a practitioner to make the right technology choice. The steps to strategise a big data implementation are also discussed in detail. This book presents a holistic approach to the topic, covering a wide landscape of big data technologies like Hadoop 2.0 and package implementations, such as Cloudera. In-depth discussion of associated technologies, such as MapReduce, Hive, Pig, Oozie, ApacheZookeeper, Flume, Kafka, Spark, Python and NoSQL databases like Cassandra, MongoDB, GraphDB, etc., is also included

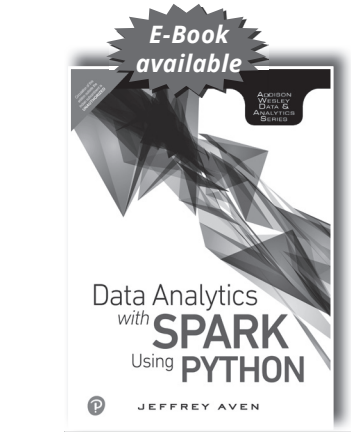
FEATURES

- Important concepts are backed by code snippets enabling step-by-step practical implementation.
- Includes case study with complete code and detailing the concepts are discussed.
- Numerous objective and subjective-type questions added for readers to evaluate their learning.

CONTENTS

ABOUT THE AUTHOR(S)

Sourabh Mukherjee Head – Data Management Practice Advanced Technology Center India Accenture
Amit Kumar Das Assistant Professor Department of Computer Science and Engineering Institute of Engineering and Management, Kolkata
Sayan Goswami Technical Architect, Big Data Cognizant Technologies



ISBN: 9789353068455

Data Analytics with Spark Using Python

Jeffrey Aven

320 | © **2019**

ABOUT THE BOOK

Spark is at the heart of today's Big Data revolution, helping data professionals supercharge efficiency and performance in a wide range of data processing and analytics tasks. In this guide, Big Data expert Jeffrey Aven covers all students need to know to leverage Spark, together with its extensions, subprojects, and wider ecosystem.

Aven combines a language-agnostic introduction to foundational Spark concepts with extensive programming examples utilizing the popular and intuitive PySpark development environment. This guide's focus on Python makes it widely accessible to students at various levels of experience-even those with little Hadoop or Spark experience.

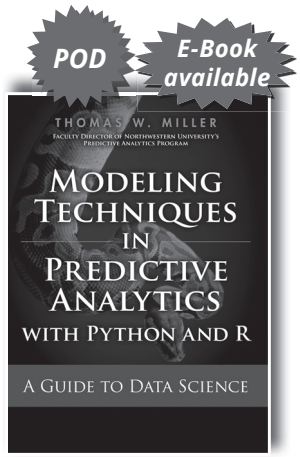
FEATURES

- Understand Spark's evolving role in the Big Data and Hadoop ecosystems.
- Create Spark clusters using various deployment modes.
- Control and optimize the operation of Spark clusters and applications.
- Master Spark Core RDD API programming techniques.
- Extend, accelerate, and optimize Spark routines with advanced API platform constructs, including shared variables, RDD storage, and partitioning.
- Efficiently integrate Spark with both SQL and nonrelational data stores.
- Perform stream processing and messaging with Spark Streaming and Apache Kafka.
- Implement predictive modeling with SparkR and Spark MLlib.

CONTENTS

ABOUT THE AUTHOR

Jeffrey Aven is an independent Big Data, open source software and cloud computing professional based out of Melbourne, Australia. Jeffrey is a highly regarded consultant and instructor and has authored several other books including Teach Yourself Apache Spark in 24 Hours and Teach Yourself Hadoop in 24 Hours.



ISBN: 9789353065737

Modeling Techniques in Predictive Analytics with Python and R

Thomas W. Miller

448 | © **2018**

ABOUT THE BOOK

Today, successful firms win by understanding their data more deeply than competitors do. They compete based on analytics. In Modeling Techniques in Predictive Analytics, the Python edition, the leader of Northwestern University's prestigious analytics program brings together all the up-to-date concepts, techniques, and Python code you need to excel in analytics.

Thomas W. Miller's balanced approach combines business context and quantitative tools, appealing to managers, analysts, programmers, and students alike. This important reference addresses multiple business challenges and business cases, including segmentation, brand positioning, product choice modeling, pricing research, finance, sports, Web and text analytics, and social network analysis. He illuminates the use of cross-sectional data, time series, spatial, and even spatio-temporal data. For each problem, Miller explains:

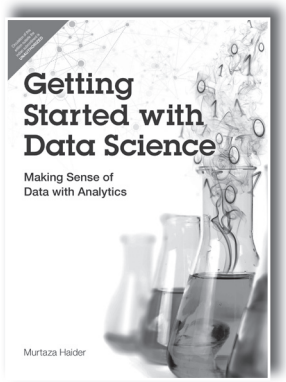
FEATURES

- Today's definitive, comprehensive guide to using predictive analytics to overcome business challenges – now updated and reorganized for more effective learning!
- Teaches modeling techniques conceptually, with words and figures – and then mathematically, with the powerful Python language
- Restructured standalone chapters provide fast access to all the knowledge you need to solve any category of problem
- Covers segmentation, brand positioning, product choice modeling, pricing, finance, sports analytics, Web/text analytics, social network analysis, and more
- Helps you leverage traditional techniques, machine learning, data visualization, and statistical graphics
- Designed for wide applicability and ease of use: requires no linear algebra or advanced math
- Contains updated source material throughout
- Now leads directly into Pearson's pioneering Data Science Series: cutting-edge texts on advanced modeling for business managers, modelers, and programmers alike

CONTENTS

ABOUT THE AUTHOR

Thomas W. Miller is faculty director of the Predictive Analytics program at Northwestern University. He has designed courses for the program, including Marketing Analytics, Advanced Modeling Techniques, Data Visualization, Web and Network Data Science, and the capstone course. He has taught extensively in the program and works with more than forty other faculty members in delivering training in predictive analytics and data science.



ISBN: 9789332570252

Getting Started with Data Science: Making Sense of Data with Analytics

Murtaza Haider

608 | © **2016**

ABOUT THE BOOK

Getting Started with Data Science takes its approach from worldwide best-sellers like Freakonomics and the books of Malcolm Gladwell: it teaches through a powerful narrative packed with unforgettable stories. The book covers basic theory and technique, backed with plenty of clear, jargon-free examples and practice opportunities. Everything's software and platform independent, so students can learn what they need whether they work with R, Stata, SPSS, SAS, or another toolset.

FEATURES

- Teaches data analytics with the same popular approach that made Freakonomics and Malcolm Gladwell's books worldwide best-sellers.
- Covers crucial ingredients for practical success with data analytics -- especially how to create powerful, visual narratives to explain findings and make them actionable.
- Practical, hands-on, and product independent: supports any tool, application, or environment.
- Gives students extensive practice -- not just a single example for each concept.
- By an expert who has crafted 50+ of the world's most popular data analytics instructional videos.

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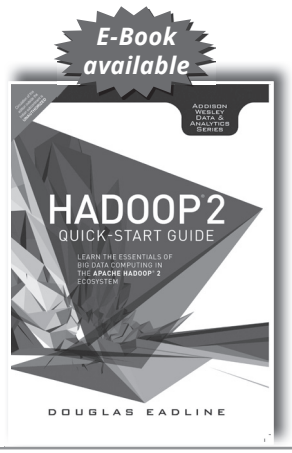
ABOUT THE AUTHOR

Murtaza Haider, Ph.D., is an Associate Professor at the Ted Rogers School of Management, Ryerson University, and the Director of a consulting firm Regionomics Inc. He is also a visiting research fellow at the Munk School of Global Affairs at the University of Toronto (2014-15). In addition, he is a senior research affiliate with the Canadian Network for Research on Terrorism, Security, and Society, and an adjunct professor of engineering at McGill University.



ISBN: 9789332570351

Hadoop 2 Quick-Start Guide: Learn the Essentials of Big Data Computing in the Apache Hadoop 2 Ecosystem

Douglas Eadline

304 | © **2016**

ABOUT THE BOOK

An easy, accessible guide to Big Data technology, this book covers all the basics students need to know to install and use Hadoop 2 on both personal computers and servers, and navigate the entire Apache Hadoop ecosystem. Hadoop 2 is demystified This guide explains the problems Hadoop solves, shows how it relates to Big Data, and demonstrates both administrators and users work with it. From its Getting Started checklist/flowchart to its roadmap of additional resources, Hadoop 2 Quick-Start Guide is the perfect Hadoop 2 starting point for students to master Big Data.

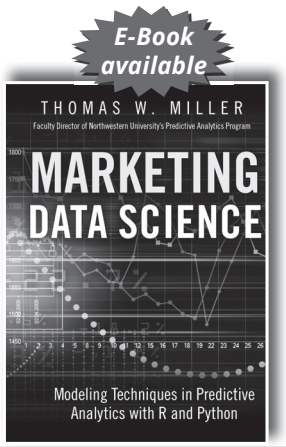
FEATURES

- Helps students get Hadoop up and running fast with clear, well-tested beginner-level instructions and examples.
- Includes hands-on coverage: HDFS, running programs, benchmarking, MapReduce, higher-level tools, YARN, administration, and more Demystifies Hadoop 2.

CONTENTS

ABOUT THE AUTHOR

Douglas Eadline began his career as a practitioner and a chronicler of the Linux cluster HPC revolution and now documents Big Data analytics. Starting with the first Beowulf Cluster how-to document, Doug has written hundreds of articles, white papers, and instructional documents covering virtually all aspects of High Performance Computing (HPC). Prior to starting and editing the popular ClusterMonkey.net website in 2005, he served as editor-in-chief for ClusterWorld Magazine, and was senior HPC editor for Linux Magazine. Currently, he is a writer and consultant to the HPC/Data Analytics industry and leader of the Limulus Personal Cluster Project (limulus.basement-supercomputing.com). He authored Hadoop Fundamentals LiveLessons, Second Edition (2015), and Apache Hadoop YARN LiveLessons (2014), and is coauthor of Apache Hadoop™ YARN (2014), all from Addison-Wesley.



ISBN: 9789353065744

Marketing Data Science

Thomas W. Miller

480 | © **2018**

ABOUT THE BOOK

In Marketing Data Science, a top faculty member of Northwestern University's prestigious analytics program presents a fully-integrated treatment of both the business and academic elements of marketing applications in predictive analytics. Writing for both managers and students, Thomas W. Miller explains essential concepts, principles, and theory in the context of real-world applications

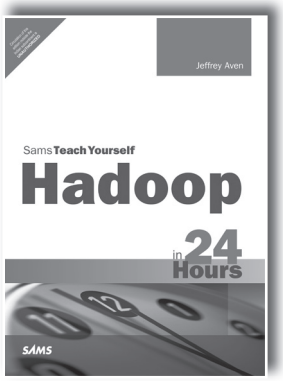
FEATURES

- The fully-integrated, expert, hands-on guide to predictive analytics and data science for marketing
- Fully integrates everything you need to know to address real marketing challenges – including all relevant web analytics, network science, information technology, and programming techniques
- Covers analytics for segmentation, targeting, positioning, pricing, product development, site selection, recommender systems, forecasting, retention, lifetime value analysis, and much more
- Includes multiple examples demonstrated with Python and R
- By Thomas W. Miller, leader of Northwestern's pioneering predictive analytics program, and author of Modeling Techniques in Predictive Analytics

CONTENTS

ABOUT THE AUTHOR

Thomas W. Miller is faculty director of the Predictive Analytics program at Northwestern University. He has designed courses for the program, including Marketing Analytics, Advanced Modeling Techniques, Data Visualization, Web and Network Data Science, and the capstone course. He has taught extensively in the program and works with more than forty other faculty members in delivering training in predictive analytics and data science.



ISBN: 9789352866571

Hadoop in 24 Hours, Sams Teach Yourself

Jeffrey Aven

496 | © 2018

ABOUT THE BOOK

Apache Hadoop is the technology at the heart of the Big Data revolution, and Hadoop skills are in enormous demand. Now, in just 24 lessons of one hour or less, students can learn all the skills and techniques they'll need to deploy each key component of a Hadoop platform in a local environment or in the cloud, building a fully functional Hadoop cluster and using it with real programs and datasets. Each short, easy lesson builds on all that's come before, helping students master all of Hadoop's essentials, and extend it to meet real-world challenges. Apache Hadoop in 24 Hours, Sams Teach Yourself covers all this, and much more:

FEATURES

- Covers all aspects of the Hadoop platform, its interfaces, and its key ecosystem components and associated Big Data technologies
- Shows how to build Hadoop solutions step by step, with all samples available for download
- Teaches through practical instructions, realistic examples, hands-on workshops, Q-and-As, quizzes, exercises, tips, and more

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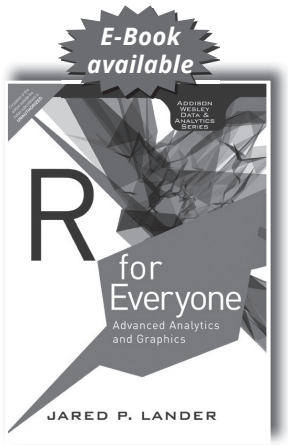

ISBN: 9789386873521

R For Everyone: Advanced Analytics and Graphics, 2/e

Jared P. Lander

580 | © **2018**

ABOUT THE BOOK

Using the free, open source R language, scientists, financial analysts, public policy professionals, and programmers can build powerful statistical models capable of answering many of their most challenging questions. But, for non-statisticians, R can be difficult to learn–and most books on the subject assume far too much knowledge to help the non-statistician. ***R for Everyone*** is the solution. Drawing on his extensive experience teaching new users through the New York City R User Group, professional statistician Jared Lander has written the perfect R tutorial for everyone who's new to statistical programming and modeling.

FEATURES

- Updated with new chapters on the caret package, network analysis, and Shiny
- New coverage of RBokeh, Plotly, json libraries, dplyr, tidyr, tests, reading Excel data package, and more
- Packed with hands-on practice opportunities and realistic, downloadable code examples
- By an author with unsurpassed experience teaching statistical programming and modeling to novices
- For every potential R user: programmers, data scientists, DBAs, marketers, quants, scientists, policymakers

CONTENTS

ABOUT THE AUTHOR

Jared P. Lander is the owner of Lander Analytics, a statistical consultanting firm based in New York City, the organizer of the New York Open Statistical Programming Meetup and an adjunct professor of statistics at Columbia University. He is also a tour guide for Scott's Pizza Tours and an advisor to Brewla Bars, a gourmet ice pop startup.

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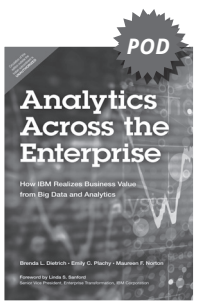
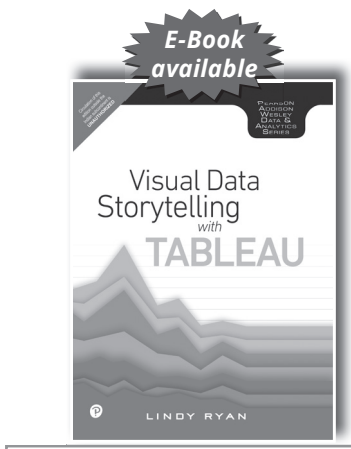


Analytics Across the Enterprise

Brenda L.Dietrich /Emily C.Plachy /Maureen F.Norton

ISBN: 9789332538306
Pages: 224



ISBN: 9789353063597

Visual Data Storytelling with Tableau, (4color)

Lindy Ryan

272 | © **2018**

ABOUT THE BOOK

The modules in this book will go beyond the dashboard to communicate business-relevant implications of data analyses using the analytic, visualization, and storytelling capabilities of Tableau, the most popular visualization software in use by businesses world today. Each chapter will split focus between discussing key components of design practice and data visualization and introducing a format for representing information with step-by-step guides for using Tableau. By the end of this book, readers will not only understand how data stories differ from traditional storytelling and how to purposefully craft a compelling data story, but also how to employ the horsepower of Tableau to structure data analysis projects so that they can effectively analyze, visualize, and communicate insights in a way that is meaningful for stakeholders across a variety of communication mediums.

FEATURES

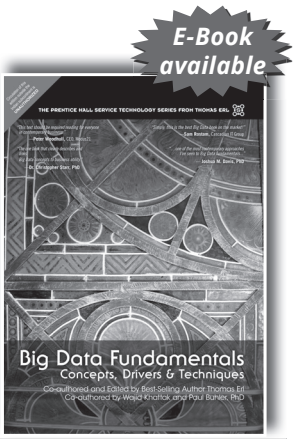
The Tableau software does not come with the book, however Tableau for Teaching provides free one year licenses for students and for faculty (which can be renewed). Instructors can also register their classes for class licensing and be given access to sandbox working environments for their class to collaborate together. Details are explained in the book. The links to Tableau for Teaching are:

CONTENTS

ABOUT THE AUTHOR

Lindy Ryan is passionate about telling stories with data. She specializes in translating raw data into insightful stories through carefully curated visuals and engaging narrative frameworks.

Before joining academia, Lindy was the Research Director for research and advisory firm Radiant Advisors from 2011 through 2016. In this role Lindy led Radiant's analyst activities in the confluence of data discovery, visualization, and visual analytics. She also developed the methodology for the Data Visualization Competency Center (DVCC), a framework for helping data-driven organizations to effectively implement data visualization for enterprise-wide visual data analysis and communication. Her tool-agnostic approach has been successfully implemented at a variety of organizations across several industries and with multiple visualization technologies, including Tableau, Qlik, and GoodData. She remains a respected analyst in the data visualization community and is a regular contributor to several industry publications as well as a speaker at conferences worldwide.



ISBN: 9789332575073

Big Data Fundamentals

Thomas Erl | Wajid Khattak | Dr. Paul Buhler

240 | © 2016

ABOUT THE BOOK

Big Data Science Fundamentals offers a comprehensive, easy-to-understand, and up-to-date understanding of Big Data for all business professionals and technologists. Leading enterprise technology author Thomas Erl introduces key Big Data concepts, theory, terminology, technologies, key analysis/analytics techniques, and more - all logically organized, presented in plain English, and supported by easy-to-understand diagrams and case study examples.

FEATURES

- Presents vendor-neutral coverage of concepts, theory, terminology, technologies, key analysis/analytics techniques, and more.
- Illuminates fundamental and advanced principles with hundreds of images, diagrams, and real case studies.
- Clarifies the linkages between Big Data and existing enterprise technologies, analytics capabilities, and business intelligence systems.
- Clear, consistent, logically organized, and up-to-date.
- The newest title in The Prentice Hall Service Technology Series from Thomas Erl.

CONTENTS

ABOUT THE AUTHOR(S

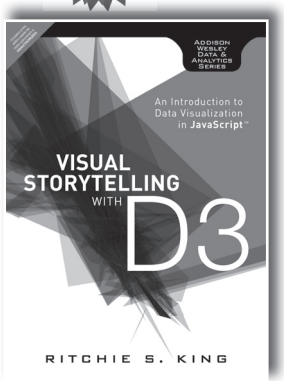
Thomas Erl is a top-selling IT author, founder of Arcitura Education and series editor of the Prentice Hall Service Technology Series from Thomas Erl. With more than 200,000 copies in print worldwide, his books have become international bestsellers and have been formally endorsed by senior members of major IT organizations, such as IBM, Microsoft, Oracle, Intel, Accenture, IEEE, HL7, MITRE, SAP, CISCO, HP and many others. As CEO of Arcitura Education Inc., Thomas has led the development of curricula for the internationally recognized Big Data Science Certified Professional (BDSCP), Cloud Certified Professional (CCP) and SOA Certified Professional (SOACP) accreditation programs, which have established a series of formal, vendor-neutral industry certifications obtained by thousands of IT professionals around the world. Thomas has toured more than 20 countries as a speaker and instructor. More than 100 articles and interviews by Thomas have been published in numerous publications, including The Wall Street Journal and CIO Magazine.

Wajid Khattak is a Big Data researcher and trainer at Arcitura Education Inc. His areas of interest include Big Data engineering and architecture, data science, machine learning, analytics and SOA. He has extensive .NET software development experience in the domains of business intelligence reporting solutions and GIS.

Wajid completed his MSc in Software Engineering and Security with distinction from Birmingham City University in 2008. Prior to that, in 2003, he earned his BSc (Hons) degree in Software Engineering from Birmingham City University with first-class recognition. He holds MCAD & MCTS (Microsoft), SOA Architect, Big Data Scientist, Big Data Engineer and Big Data Consultant (Arcitura) certifications.

Paul Buhler is a seasoned professional who has worked in commercial, government and academic environments. He is a respected researcher, practitioner and educator of service-oriented computing concepts, technologies and implementation methodologies. His work in XaaS naturally extends to cloud, Big Data and IoE areas. Dr. Buhler's more recent work has been focused on closing the gap between business strategy and process execution by leveraging responsive design principles and goal-based execution.

POD



ISBN: 9789332559974

Visual Storytelling with D3: An Introduction to Data Visualization in JavaScript

Ritchie S. King

276 | © **2015**

ABOUT THE BOOK

Top infographics expert Ritchie S. King covers both areas needed to master to build truly outstanding infographics with D3: design issues associated with crafting well-conceived infographics that communicate effectively and technical issues associated with wielding the D3 JavaScript library. Combining a strong framework of design principles with detailed, practical instructions, this is the most comprehensive and coherent treatment of D3 ever written. Drawing on his experience a working infographic artist, writer, and JavaScript programmer, King helps the reader rapidly put theory to practical use.

FEATURES

- The perfect resource for technical, design, and media professionals who want to build the world-class infographics that are in incredibly hot demand
- Brings together expert coverage of both infographic design and D3 JavaScript programming
- Illuminates D3's remarkably broad capabilities, from shape drawing and manipulation to transitions, animations, and mapping
- No other resource covers D3 in this much practical detail!

CONTENTS

ABOUT THE AUTHOR

Ritchie S. King is a reporter and visual journalist at FiveThirtyEight.com, focusing on data visualization and interactive features. He previously held a similar role at Quartz. In a previous life, he was a chemical engineer at a start-up trying to turn wood chips and switchgrass into fuel. Though he left engineering to become a journalist, he's still into math and likes to muck with data. His written stories and graphics have appeared in the New York Times, Bloomberg Businessweek, Popular Science, and IEEE Spectrum.

ISBN: 9789332557307

Cloud Computing Design Patterns

Thomas Erl

600 | © **2015**

ABOUT THE BOOK

Best-selling author Thomas Erl has brought together the first de facto catalog of design patterns for modern cloud technology architectures, platforms and practices. More than two years in development, the 80+ patterns covered in this book illustrate proven architectural and design solutions to the most common problems and requirements for cloud-based solution design and implementation, with rich, visual documentation including 300+ diagrams. Erl and his colleagues document dozens of cloud computing mechanisms, each representing a well-defined component common to cloud-based environments.

FEATURES

- Presents 80+ patterns and 300 diagrams demonstrating proven architectural and design solutions for the most common cloud challenges.
- Documents dozens of cloud computing mechanisms, each representing a well-defined component of cloud-based environments.
- Introduces cloud computing design patterns with an unprecedented level of technical depth.

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ABOUT THE AUTHOR

Thomas Erl is a top-selling IT author, founder of Arcitura Education Inc., and series editor of the Prentice Hall Service Technology Series from Thomas Erl. With more than 200,000 copies in print worldwide, his books have become international bestsellers and have been formally endorsed by senior members of major IT organizations, such as IBM, Microsoft, Oracle, Intel, Accenture, IEEE, HL7, MITRE, SAP, CISCO, HP, and many others.

Robert Cope has more than 25 years of experience in mission-critical systems development, spanning all aspects of the software system engineering lifecycle from architectural development, experimentation and prototyping, requirements development, design, implementation, and operations to acquisition program management for large systems.

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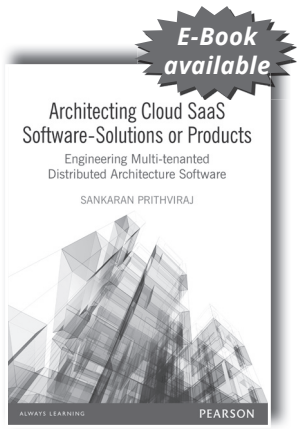
High Performance Cluster Computing Vol 1

Rajkumar Buyya

ISBN: 9788131716939
Pages: 882



ISBN: 9789332537606

Architecting Cloud SaaS Software-Solutions or Products

Sankaran Prithviraj

216 | © **2015**

ABOUT THE BOOK

This book has been written from a practical perspective with case studies being used to explain most of the concepts for the benefit of IT professionals who engineer, architect or design cloud SaaS. Technical leads, architects, designers, software engineers and softwaredevelopers also stand to benefit from this book.

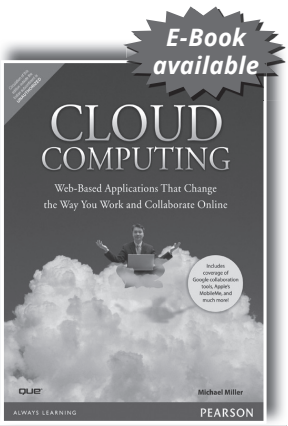
FEATURES

- Helps professionals in marketing, project managers and non-hands on CxOs, who want to know more beyond introductory material on cloud computing.
- Chapters on Cloud SaaS Software and Cloud Compatibility Measure reveal the difference between conventional software and the cloud compatible.
- A chapter on TOGAF, the general purpose architecting methodology, to suit to the specific purpose of architecting cloud compatible SaaS.
- The top management personnel of software firms can benefit from this book as it gives them adequate foundation in the concept of cloud compatible SaaS to which they would otherwise have limited exposure, as sponsors of IT projects.

CONTENTS

ABOUT THE AUTHOR

Sankaran Prithviraj, in his current role as independent technology strategist, provides thought leadership, advises CxOs on technology selection and use as strategic tool for business, and innovates new solutions using emerging technologies such as cloud computing, mobile computing, analytics, and enterprise architecture.



ISBN: 9788131725337

Cloud Computing

Michael Miller

312 | © **2008**

ABOUT THE BOOK

With cloud computing, everything you do is now web-based instead of being desktop-based; you can access all your programs and documents from any computer that's connected to the Internet. Whether you want to share photographs with your family, coordinate volunteers for a community organization, or manage a multi-faceted project in a large organization, cloud computing can help you do it more easily than ever before. Trust us. If you need to collaborate, cloud computing is the way to do it.

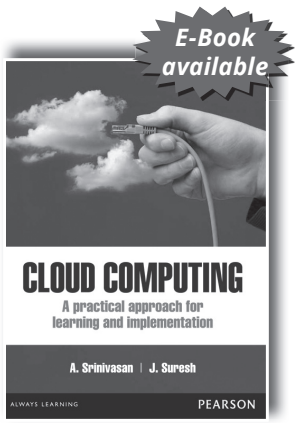
FEATURES

- Perfect for telecommuters, business travelers and even families online collaboration is the new web frontier.
- The days of bulky, expensive computer programs are fading fast.
- The new paradigm is one in which people use Web-based applications to work, socialize and play without doling out big bucks for bloated software applications that cost more than they're worth.

CONTENTS

ABOUT THE AUTHOR

Michael Miller is a successful and prolific author. He is known for his casual, easy-to-read writing style and his ability to explain a wide variety of complex topics to an everyday audience.



ISBN: 9788131776513

Cloud Computing: A Practical Approach for Learning and Implementation

A Srinivasan | J Suresh

440 | © 2014

ABOUT THE BOOK

This book lays a good foundation to the core concepts and principles of cloud computing, walking the reader through the fundamental ideas with expert ease. The book advances on the topics in a step-by-step manner and reinforces theory with a full-fledged pedagogy designed to enhance students' understanding and offer them a practical insight into the subject

FEATURES

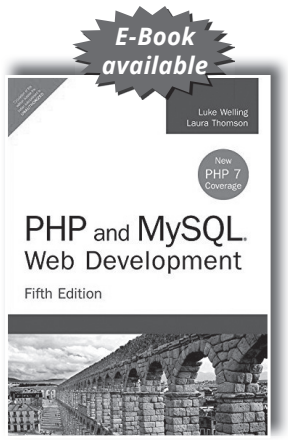
- Student friendly and easy to understand.
- Fourteen case studies devoted to showcase the implementation of the cloud.
- Provides pertinent insights into the future applications of the cloud.
- In-depth analysis of service-oriented architecture in explicit text spanning three chapters.
- Over 630 exercises.

CONTENTS

ABOUT THE AUTHORS

Srinivasan is Senior Professor and Head, Department of Information Technology, at MNM Jain Engineering College, Chennai. He has over 30 years of teaching experience.

Suresh Jagannathan is Associate Professor, Department of Computer science, at SSN college of Engineering, Chennai.



ISBN: 9789332582736

PHP and MySQL Web Development, 5/e

Luke Welling | Laura Thomson

688 | © 2017

ABOUT THE BOOK

Long acknowledged as the clearest and most practical guide to PHP/MySQL web development, the brand-new Fifth Edition of ***PHP and MySQL Web Development*** fully reflects the latest versions of PHP and MySQL to help your students master today's best practices for succeeding with PHP 7 and MySQL 5.7 web database development. New coverage of security, cloud and mobile development, and using the PEAR repository's massive resources have been added to this edition. The authors teach all these things while maintaining the clarity and character that thousands of readers have found so appealing in the book's first four editions

FEATURES

- The definitive, best-selling book on combining these two open source tools to create dynamic Web sited -- updated for PHP 7 and MySQL 5.7
- Clear, practical, down to earth, and now extensively updated for today's best practices
- Includes a brand-new chapter on PHP cloud development, plus all-new mobile web app projects
- Now focuses on security issues throughout, and contains an all-new chapter on Web security
- Adds new coverage of using the indispensable PEAR repository of PHP extensions and applications

CONTENTS

ABOUT THE AUTHORS

Laura Thomson is director of engineering at Mozilla Corporation. She was formerly a principal at both OmniTI and Tangled Web Design, and she has worked for RMIT University and the Boston Consulting Group. She holds a Bachelor of Applied Science (Computer Science) degree and a Bachelor of Engineering (Computer Systems Engineering) degree with honors.

Luke Welling is a software engineer and regularly speaks on open source and web development topics at conferences such as OSCON, ZendCon, MySQLUC, PHPCon, OSDC, and LinuxTag. He has worked for OmniTI, for the web analytics company Hitwise.com, at the database vendor MySQL AB, and as an independent consultant at Tangled Web Design. He has taught computer science at RMIT University in Melbourne, Australia, and holds a Bachelor of Applied Science (Computer Science) degree.

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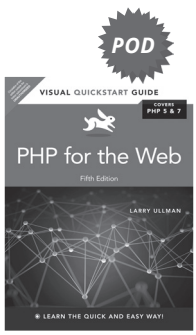
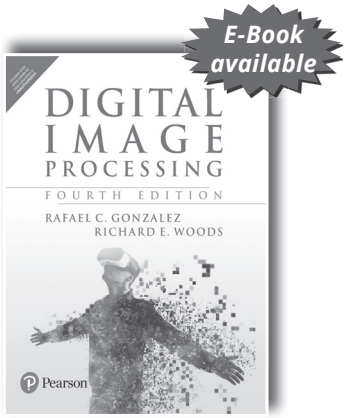


PHP for the Web: Visual QuickStart Guide, 5/e

Larry Ullman

ISBN: 9789332586086
Pages: 528



ISBN: 9789353062989

Digital Image Processing, 4/e

Rafael C. Gonza Lez | Richard E. Woods

1026 | © 2018

ABOUT THE BOOK

"The fourth edition of , which celebrates the book's 40th anniversary, continues its cutting-edge focus on contemporary developments in all mainstream areas of image processing. It focuses on material that is fundamental and has a broad scope of application."

FEATURES

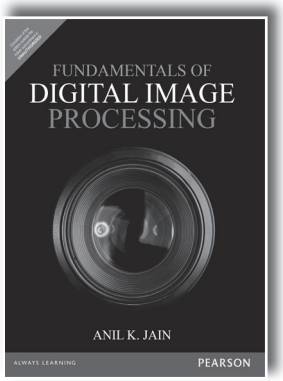
- Coverage of graph cuts and their application to segmentation.
- A discussion of superpixels and their use in region segmentation.
- 425 new images, 135 new drawings, 220 new exercises and 120 MATLAB projects.
- Two new chapters:
  - A chapter dealing with active contours for image segmentation, including snakes and level sets.
  - A chapter that brings together wavelets, several new transforms, and many of the image transforms that were scattered throughout the book.
- A complete update of the image pattern recognition chapter to incorporate new material on deep neural networks, backpropagation, deep learning, and especially, deep convolutional neural networks.
- Coverage of feature extraction, including the Scale Invariant Feature Transform (SIFT, maximally stable extremal regions (MSERs), and corner detection.
- Coverage of the fundamentals of spatial filtering, image transforms, and finite differences with a focus on edge detection.

CONTENTS

ABOUT THE AUTHOR(S)

Rafael C. Gonzalez received the B.S.E.E. degree from the University of Miami in 1965 and the M.E. and Ph.D. degrees in electrical engineering from the University of Florida, Gainesville, in 1967 and 1970, respectively. He joined the Electrical and Computer Engineering Department at University of Tennessee, Knoxville (UTK) in 1970, where he became Associate Professor in 1973, Professor in 1978, and Distinguished Service Professor in 1984.He is currently a Professor Emeritus at UTK. Gonzalez is the founder of the Image & Pattern Analysis Laboratory and the Robotics & Computer Vision Laboratory at the University of Tennessee.

Richard E. Woods earned his B.S., M.S., and Ph.D. degrees in Electrical Engineering from the University of Tennessee, Knoxville. His professional experiences range from entrepreneurial to the more traditional academic, consulting; governmental, and industrial pursuits. Most recently, he founded MedData Interactive, a high technology company specializing in the development of hand-held computer systems for medical applications. He was also a founder and Vice President of Perceptics Corporation.



ISBN: 9789332551916

Fundamentals of Digital Image Processing

Anil K. Jain

592 | © **2015**

ABOUT THE BOOK

A thorough overview of the major topics in digital image processing — representation, processing techniques, and communication.

FEATURES

- covers aspects of image representation including luminance, color, spatial and temporal properties of vision, and digitization.
- explores various image processing techniques.
- discusses algorithm development (software/firmware) for image transforms, enhancement, reconstruction, and image coding.

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