Programming Microsoft Azure Open AI
Prompt Engineering with Large Language Models (LLM) and Cognitive Services
Francesco Esposito

Key Selling Points:
Learn to use the power of Microsoft's Azure OpenAI framework to program using Large Language Models (LLMs) and Generative AI

- Illustrates and demonstrates new classes of applications affected by AI
- Shows how easy the technical part can be and how the human vision and creativity can take the reins of AI
- Azure OpenAI can be used on any platform, not just .NET

Summary
The advent of LLMs represents a breakthrough that makes possible things which weren't possible before. For several types of applications, in fact, the user interface, as we know it today, is destined to change forever, replaced by a conversational, task-based approach in which users just talk or write to the application and the application understands and responds. It's not magic, but the simple outcome of applying a new concept - prompt engineering. Prompt engineering is crucial to instruct an LLM (e.g., GPT4) to face different tasks without re-training. LLMs today have the power to reason about any unknown data, without dedicated training, as long as they are given appropriate prompts. This is a game-changer for the software industry in much the same way as was the advent of commercial Internet over two decades ago.

This book is your guide to harnessing this new power. It is split in three parts. The first discusses the set of tools available in the ecosystem of Azure Open AI services...

Contributor Bio
Francesco Esposito serves as the Head of Development in a sport-tech company and leads teams behind the platform that run every-day, worldwide operations for professional tennis and padel tennis. He leads the computer-vision team and practices every day with creative ways to increase internal productivity. Franseco co-founded a data science company that is experimenting with digital therapy and is...

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Chapter 8 - Structured Data, Raw Input and Business Logic
Chapter 9 - Even Simpler Business Apps
Applied Machine and Deep Learning with TensorFlow and PyTorch
Justin London

Key Selling Points:
Master real-world machine learning applications through new case studies using state-of-the-art methods

- Covers leading solutions for natural language processing, computer vision, object detection, image processing, pattern recognition, prediction, data visualization, and more
- Provides TensorFlow and PyTorch code for all case study applications
- Includes valuable tips and insights for improving prediction results
- Covers crucial deployment topics most books neglect
- Promotes understanding with many figures, images, and visual aids

Summary
This is the definitive practitioner's guide to solving today's real-world problems with machine learning, using tools that are soaring in popularity and marketplace demand. Pioneering machine learning researcher Justin London teaches via in-depth application case studies you can use to jumpstart your own custom solutions in natural language processing, computer vision, object detection/image processing, pattern recognition, prediction, data visualization, and beyond. Numerous applications in each chapter provide code in TensorFlow and PyTorch, with insightful discussions of what the code does, and why.

London's examples address industries including healthcare, medicine, genetics, consumer marketing, finance, autonomous vehicles, and more, offer valuable domain-specific starting points for your own work. You'll find in-depth coverage of key ML topics, essential algorithms, and state-of-the-art methods, with sufficient mathematical detail to apply them successfully.

Contributor Bio
Justin London (Chicago, IL) is a machine learning researcher at the Illinois Institute of Technology and chief data officer at Techopia. He has extensive industry experience in predictive modelling, optimization problems, quantitative analysis and simulations, and currently specializes in design and implementation of deep/machine learning algorithms.

TOC
1. Natural Language Processing
2. Computer Vision and Image Processing
3. Medicine and Pathology Applications
4. Recommender Systems
5. Pattern Recognition
6. Predictive Analytics
7. Deep Learning and Autoencoders
Time Series Prediction
Key Selling Points:
Learn about a new method of object-oriented analysis called "Generative Analysis"

- Generative AI is changing the face of software engineering and generative analysis enables software engineers to transition to this new world.
- Shows how to use Generative AI effectively in software engineering through Generative Analysis.
- Teaches advanced, practical, and precise analysis skills and techniques, using Literate Modelling, M++, multivalent logic, and UML, for the new world of software engineering with Generative AI.
- Encourages "teaching yourself" by following ready-made prompts in the book and using your favorite Generative AI tool.

Summary
Software engineering is about to undergo a seismic change, where there will be a pivot away from code towards analysis.

Generative AI is set to revolutionize many fields including software engineering. There will be a significant de-emphasis on manual code production because much of that will be automated. A new type of analyst, skilled in Generative Analysis, will be needed to produce the precise analysis artifacts to feed the AI code generation process.

To leverage these new code generation systems effectively, many programmers will have to work at a higher level of abstraction, being able to state what they require the software to do (analysis) rather than how the software is to do it (design/programming). Similarly, Business Analysts, who are pretty much already at the right level of abstraction for these systems, will need to be much more precise to get good results. This book will address both of those needs by providing a set of specific Generative Analysis tools and techniques that cross the analyst/programmer divide and create outputs suitable as input for these new AI systems. In summary, for programmers, the level of abstraction is too low, and for Business Analysts the level of abstraction is too high. Generative Analysis defines a "Goldilocks" zone for abstraction that is just right for Generative AI.

Apart from generating code, we will also increasingly need ways of fact checking the code and non-code outputs of AIs. The M++ and multivalent logic strands of Generative Analysis speak directly to this problem and provide specific techniques to check the quality of AI output. Interestingly, we can query AIs to get business information that once fact-checked can be fed directly into the Generative Analysis process creating a virtuous feedback cycle.

Contributor Bio
Dr. Jim Arlow (Isle of Wight) has been programming and designing object-oriented software systems since 1990. He has created object models for blue chip companies such as British Airways and J P Morgan. Jim was instrumental in introducing object orientation to BA and other UK companies through his work with the Object Interest Group. He is a respected consultant and trainer.
The AI Revolution in Project Management

Elevating Productivity with Generative AI
Vijay Kanabar, Jason Wong

Key Selling Points:
Provides an in-depth understanding of AI and its role as a digital assistant or coach to project managers, and their team members.

- Demonstrates how AI can be utilized across different project performance domains, offering insights and best practices to enhance performance and achieve intelligent results.
- Includes examples, case studies, and various AI tools such as ChatGPT, making it a practical guide for project managers looking to incorporate AI into their work.
- Explores both predictive and agile methodologies, offering a comprehensive view of how AI can be utilized across different project management approaches.
- Aligns with the latest global standards, making it a valuable resource for those looking to apply AI in line with industry standards and best practices.

Summary
Designed to be accessible to project managers of all levels of experience, and written in clear, straightforward language, this book combines theoretical concepts with practical advice and real-world examples, making it a valuable resource for anyone looking to incorporate AI into their project management work.

This book takes a practical approach to the topic of AI as a coach for project management. It references the various AI technologies as well as tools and requirements of project management, and ultimately how to bridge the two subject areas. Clear, step-by-step guidance on how project managers can leverage AI as a coach, supplemented with a variety of examples, case studies, and insights into various AI tools ensures that readers can apply the concepts and tools presented in the book to their own work in a systematic and effective way. This book offers a unique and valuable perspective on the topic of AI in project management. The combination of topic, approach, author expertise and practical focus make it a worthwhile addition to the project management literature.

Contributor Bio

Vijay Kanabar, PhD., MBA, PMP, CSM, PMI-ACP, is the director and associate professor of Project Management programs at Boston University, Metropolitan College. He is one of the earliest PMP credentialed practitioners from the Project Management Institute. Jason Wong, MSCIS, PMP, PMI-ACP, CSPO, is a seasoned IT leader with extensive experience in project management and a passion for AI.

1. Overview of Artificial Intelligence and Project Management
2. Stakeholders: Identifying and Engaging Using AI
3. Teams: Building and Managing Using AI
4. Introduction to Predictive and Adaptive Approaches and Tailoring Development Approach with AI
5. Planning: Defining and Scheduling Predictive Projects with AI
6. Planning: Estimating and Prioritizing Agile Projects with AI
7. Project Work: Executing and Controlling Predictive Projects with AI
8. Project Work: Measurement, Monitoring, and Reporting with AI
9. Delivery: Releasing, Validating, and Closing with AI
10. Realizing Project Value and Strategy through AI
11. The Future of AI in Project Management
The AI Revolution in Networking, Cybersecurity, and Emerging Technologies
Omar Santos, Samer Salam, Hazim Dahir

Key Selling Points:
This book will not only educate but also inspire—serving as a catalyst that propels individuals and organizations into the future of AI-integrated technology.

Summary
"The AI Revolution in Networking, Cybersecurity, and Emerging Technologies" offers an immersive journey into the world of artificial intelligence and its profound impact on key domains of technology. This book demystifies AI's emergence, growth, and current impact, shedding light on its revolutionary applications in computer networking, cybersecurity, collaboration technologies, IoT, cloud computing, and other emerging technologies.

From explaining AI's role in managing and optimizing networks to its integral part in securing the digital frontier, the authors offer a wealth of insights. They explore how AI is building robust bridges in collaboration tools and turning IoT into a super-intelligent network of devices. The reader will also discover how AI is transforming the cloud into a self-managing, secure, and ultra-efficient environment and propelling other technologies towards unprecedented advancements.

Contributor Bio
Omar Santos is a cybersecurity thought leader with a passion for driving industry-wide initiatives to enhance the security of critical infrastructures. Omar is the lead of the DEF CON Red Team Village, chair of the Common Security Advisory Framework (CSAF) technical committee, and board member of the OASIS Open standards organization. Omar's collaborative efforts extend to numerous organizations, including the Forum of Incident Response and Security Teams (FIRST) and the Industry Consortium for Advancement of Security on the Internet (ICASI).

Chapter 1: Introducing the Age of AI: Emergence, Growth, and Impact on Technology
Chapter 2: Connected Intelligence: AI in Computer Networking
Chapter 3: Securing the Digital Frontier: AI's Role in Cybersecurity
Chapter 4: AI and Collaboration: Building Bridges, Not Walls
Chapter 5: AI in Internet of Things (IoT) or AIoT: The Intelligence Behind Billions of Devices
Chapter 6: Revolutionizing Cloud Computing with AI
Chapter 7: Impact of AI in Other Emerging Technologies
The AI Revolution in Medicine
GPT-4 and Beyond
Peter Lee, Carey Goldberg, Isaac Kohane

Key Selling Points:
Learn about ChatGPT from the experts!

- Fully updated for the brand-new ChatGPT version 4
- Foreword by Sam Altman, CEO of ChatGPT
- Written for a general audience, not specialists
- Written by world-class experts who have been working with the technology for years
- Discusses both the transformational possibilities as well as the limits and cautions behind AI in medicine

Summary
AI is about to transform medicine. Here's what you need to know right now.

"The development of AI is as fundamental as the creation of the personal computer. It will change the way people work, learn, and communicate--and transform healthcare. But it must be managed carefully to ensure its benefits outweigh the risks. I'm encouraged to see this early exploration of the opportunities and responsibilities of AI in medicine."

--Bill Gates

Just months ago, millions of people were stunned by ChatGPT's amazing abilities -- and its bizarre hallucinations. But that was 2022. GPT-4 is now here: smarter, more accurate, with deeper technical knowledge. GPT-4 and its competitors and followers are on the verge of transforming medicine. But with lives on the line, you need to understand these technologies.

What can they do? What can't they do -- yet? What shouldn't they ever do? To decide, experience the cutting edge for yourself. Join three insiders who've had months of early access to GPT-4 as they reveal its momentous potential -- to improve diagnoses, summarize patient visits, streamline processes, accelerate research, and much more. You'll see real GPT-4 dialogues -- unrehearsed and unfiltered, brilliant and blundering alike -- all annotated with invaluable context, candid commentary, real risk insights, and up-to-the-minute takeaways.

Contributor Bio
Peter Lee, PhD, Corporate VP for Research and Incubations at Microsoft, has focused for the past six years on AI's uses in healthcare and the life sciences. He formerly led computing projects at DARPA and chaired the computer science department at Carnegie Mellon University.

Carey Goldberg, a longtime medical and science journalist, has covered topics ranging from healthcare costs to genomic research. She has been on staff for The New York Times, Los Angeles Times, Boston Globe, WBUR/NPR, and Bloomberg News.

Isaac "Zak" Kohane, MD, PhD, inaugural chair of Harvard Medical School's Department of Biomedical Informatics, has worked on medical AI since the 1990s. He is urgently focused on helping doctors become more effective and fulfilled as they work with machine intelligence.
Responsible AI
Best Practices for Creating Trustworthy AI Systems
Commonwealth Scientific and Industrial Research Organisation

Key Selling Points:
A practical guide for operationalizing responsible AI across the development lifecycle:
- from governance to design patterns and software engineering

- Written by the experts at Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Helps you accelerate AI adoption as you reduce its risks, translating ethical principles into more effective products, better consulting, and greater impact
- Includes detailed coverage of applying principle-specific techniques for fairness, privacy, and explainability
- Previews the future of responsible AI
- Supported by a continually-updated online repository of patterns, techniques, examples, and playbooks

Summary
AI systems are solving real-world challenges and transforming industries, but there are serious concerns about how responsibly they operate on behalf of the humans that rely on them. Many ethical principles and guidelines have been proposed for AI systems, but they're often too "high-level" to be translated into practice. Conversely, AI/ML researchers often focus on algorithmic solutions that are too "low-level" to adequately address ethics and responsibility. In this timely, practical guide, pioneering AI practitioners bridge these gaps. The authors illuminate issues of AI responsibility across the entire system lifecycle and all system components, offer concrete and actionable guidance for addressing them, and demonstrate these approaches in three detailed case studies. Writing for technologists, decision-makers, students, users, and other stakeholders, they cover:

- Governance mechanisms at industry, organization, and team levels
- Dev process perspectives, including software engineering best practices for AI
- System perspectives, including quality attributes, architecture styles, and patterns
- Techniques for connecting code with data and models, including key tradeoffs
- Principle-specific techniques for fairness, privacy, and explainability
- A preview of the future of responsible AI

Contributor Bio
Dr. Jon Whittle (Melbourne) is a world-renowned expert in software engineering and human-computer interaction, with a particular interest in IT for social good, AI research in health sciences, and sustainable development. He leads CSIRO's Data61, Australia's largest digital innovation organization.

Part I: Background and Overview
1. What is Responsible AI?
2. Operationalizing Responsible AI

Part II: The Process Perspective
3. Governance Perspective and Best Practices
4. Development Process Perspective and Best Practices

Part III: The System Perspective
5. From Principles to Quality Attributes
6. Architecture Styles and Design Patterns
7. Beyond Code: Data, Models, Configurations, and Parameters
8. Principle-Specific Techniques

Part IV: Case Studies
Beyond the Algorithm
AI, Security, Privacy, and Ethics
Omar Santos, Petar Radanliev

Key Selling Points:
This book provides comprehensive knowledge, practical guidance, and ethical considerations to a diverse audience, from beginners to seasoned professionals, involved in the development, deployment, and management of AI systems.

Summary
This book is a comprehensive, cutting-edge guide designed to educate readers on the essentials of artificial intelligence (AI) and machine learning (ML), while emphasizing the crucial aspects of security, ethics, and privacy. The book aims to equip AI practitioners, IT professionals, data scientists, security experts, policy-makers, and students with the knowledge and tools needed to develop, deploy, and manage AI and ML systems securely and responsibly.

The book is divided into several sections, each focusing on a specific aspect of AI. It begins by introducing the fundamentals of AI technologies, providing an overview of their history, development, and various types. This is followed by a deep dive into popular AI algorithms and large language models (LLMs), including GPT-4, that are at the forefront of AI innovation.

Next, the book explores the critical security aspects of AI systems, examining the importance of security and the key challenges faced in this domain. It also delves into the common threats, vulnerabilities, and attack vectors, as well as risk assessment and management strategies. This manuscript covers data security, model security, system and infrastructure security, secure development practices, monitoring and auditing, supply chain security, and secure deployment and maintenance.

Contributor Bio
Omar Santos is a cybersecurity thought leader with a passion for driving industry-wide initiatives to enhance the security of critical infrastructures. Omar is the lead of the DEF CON Red Team Village and chair of the Common Security Advisory Framework (CSAF) technical committee.

Chapter 1: Historical Overview of Artificial Intelligence (AI) and Machine Learning (ML)
Chapter 2: Fundamentals of AI and ML Technologies and Implementations
Chapter 3: Generative AI and Large Language Models
Chapter 4: Fundamentals of AI and ML Security
Chapter 5: Hacking AI Systems
Chapter 6: System and Infrastructure Security
Chapter 7: Privacy and Ethical Considerations
Chapter 8: Legal and Regulatory Compliance
Quick Start Guide to Large Language Models
Strategies and Best Practices for Using ChatGPT and Other LLMs
Sinan Ozdemir

Key Selling Points:
The practical, step-by-step quickstart guide to using Large Language Models (LLMs) at scale in your own projects and products

- Includes real-world case studies and practical techniques for GPT, T5, and BERT
- Covers core techniques for integrating LLM technology and capabilities - from ChatGPT APIs to prompt engineering, chatbot personas, and cloud deployment
- Clear instructions and best practices you can use even if you've never worked with LLMs before

Summary
The Practical, Step-by-Step Guide to Using LLMs at Scale in Projects and Products

Large Language Models (LLMs) like ChatGPT are demonstrating breathtaking capabilities, but their size and complexity have deterred many practitioners from applying them. In Quick Start Guide to Large Language Models, pioneering data scientist and AI entrepreneur Sinan Ozdemir clears away those obstacles and provides a guide to working with, integrating, and deploying LLMs to solve practical problems.

Ozdemir brings together all you need to get started, even if you have no direct experience with LLMs: step-by-step instructions, best practices, real-world case studies, hands-on exercises, and more. Along the way, he shares insights into LLMs' inner workings to help you optimize model choice, data formats, parameters, and performance. You'll find even more resources on the companion website, including sample datasets and code for working with open- and closed-source LLMs such as those from OpenAI (GPT-4 and ChatGPT), Google (BERT, T5, and Bard), EleutherAI (GPT-J and GPT-Neo), Cohere (the Command family), and Meta (BART and the LLaMA family).

Contributor Bio
Sinan Ozdemir is currently the founder and CTO of Shiba Technologies. Sinan is a former lecturer of Data Science at Johns Hopkins University and the author of multiple textbooks on data science and machine learning. Additionally, he is the founder of the recently acquired Kylie.ai, an enterprise-grade conversational AI platform with RPA capabilities. He holds a master's degree in Pure Mathematics.

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**JVM Performance Engineering**  
*Inside OpenJDK and the HotSpot Java Virtual Machine*  
Monica Beckwith

**Key Selling Points:**  
The definitive, comprehensive guide to JVM and OpenJDK HotSpot VM performance engineering  
Demystifies complex aspects of JVM performance and provides practical optimization techniques  
Introduces essential skills for diagnosing performance issues and implementing solutions  
Covers performance issues associated with Java’s type system, modular Java, OpenJDK advanced memory management, strings, locks, startup, and more

**Summary**

This comprehensive guide to Java Virtual Machine (JVM) performance engineering is an indispensable resource for every experienced Java developer. World-renowned Java performance expert Monica Beckwith focuses specifically on the OpenJDK HotSpot VM, thoroughly demystifies complex aspects of JVM performance, shares powerful diagnosis techniques, and helps you implement effective optimizations throughout your own code.

First, Beckwith reviews the evolution of Java and the JVM, illuminating garbage collection strategies, parallel and concurrent GC threads, and their performance implications. Next, she expertly discusses the Java type system’s evolution, its impact on performance and efficiency, and potential Project Valhalla enhancements. Beckwith shows how to transform monolithic Java applications to the modern, modular Java paradigm, updating project structures, ensuring dependency compatibility, and managing modules to optimize performance.

**Contributor Bio**

**Monica Beckwith** (Austin, TX Area) is a Java Champion and JavaOne Rock Star who has made significant performance contributions to the Java HotSpot VM. Prior to joining Microsoft as Senior Performance Engineer, she served as JVM Performance Architect at Arm, and led Oracle’s Garbage First Garbage Collector performance team. She is co-author of *Java Performance Companion*. 
Learn JavaScript the Hard Way
Zed A. Shaw

Key Selling Points:
Takes a true beginner from knowing nothing about programming to understanding the basics of programming with JavaScript.

- Zed has a fun, proven method for teaching programming to absolute beginners
- JavaScript is perhaps the most widely used programming language in the world
- The demand for people who know JavaScript is keen
- Teaches a thoroughly modern, up-to-date version of JavaScript

Summary
JavaScript is arguably the most successful language in the world, being found in everything from web browsers, to servers, to phones, and even in billion dollar desktop applications. As a result there is a huge demand in the marketplace for people who know how to program in JavaScript, and a corresponding demand for material which teaches JavaScript clearly and thoroughly.

While there are many books available which purport to teach JavaScript to beginners, even the most popular ones assume some basic knowledge of programming practice. This book, in contrast, is written for the true beginner. The author, Zed Shaw, is widely known for his unique system of teaching introductory programming, the "Hard Way Method", which has been used successfully by millions of people. Readers appreciate that he truly starts at the very beginning. As they learn more, they will grow to appreciate both the thoroughness of his coverage and the fact that the material is completely up to date with current JavaScript.

Contributor Bio
Zed A. Shaw is the author of the popular books, Learn Python the Hard Way, Learn Ruby the Hard Way, and Learn C the Hard Way. He is also the creator of several open source software projects and has been programming and writing for nearly 25 years. Most of his free time is devoted to the study of painting and art history.
Learn Python the Hard Way (5th Edition)
Zed A. Shaw

Key Selling Points:
The Python programming book (and video) for everyone who always wanted to learn programming, but never thought they could!

- Python for beginners: a disciplined, practice-driven training method that works!
- By Zed Shaw: top blogger, outstanding teacher, renowned open source project leader
- Refined through Shaw's extensive instructional work online, where he attracts 10-20K visitors per day: an earlier online version of this book earned 500K+ downloads
- Completely updated with all new examples focused on using Python for data analysis

Summary
You Will Learn Python!

Zed Shaw has perfected the world's best system for learning Python. Follow it and you will succeed--just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else.

In Learn Python the Hard Way, Fifth Edition, you'll learn Python by working through 60 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code.

- Install a complete Python environment
- Organize and write code
- Fix and break code
- Basic mathematics
- Variables
- Strings and text
- Interact with users
- Work with files
- Looping and logic
- Data structures using lists and dictionaries
- Program design
- Object-oriented programming
- Inheritance and composition
- Modules, classes, and objects
- Python packaging
- Automated testing
- Basic data mung...

Contributor Bio
Zed A. Shaw is the author of the popular books, Learn Python the Hard Way, Learn Ruby the Hard Way, and Learn C the Hard Way. He is also the creator of several open source software projects and has been programming and writing for nearly 25 years. Most of his free time is devoted to the study of painting and art history.
Better Python Code
A Guide for Aspiring Experts
David Mertz

Key Selling Points:
Python makes coding too easy; move beyond code that "mostly works" to code that is expressive, robust, and efficient.

- Quite simply - this book is about writing better Python code
- Broad approach to Pythonic best practices including key insights for programmers new to Python but bringing the baggage of their old coding practices
- Based on latest Python release, 3.12
- Written by a long-time expert on Python

Summary
Python is one of the most widely used programming languages in the world. It is used everywhere from primary school education to workaday web development, to the most advanced scientific research institutes of the world. However, like all programming languages, Python has a collection of "Pythonic" ways of accomplishing tasks that are easy to overlook, especially when habits are borrowed wholesale from work in other programming languages.

*Better Python Code* is a guide to Pythonic programming. The book presents common mistakes that Python developers make--even Python developers who have used the language for years--often because Python sometimes presents "attractive nuisances."

Throughout, the book is a guide to better programming in the core Python language.

Each section shows a concrete but concise example of some misunderstanding or bad habit in action. Each section contains a description of what is wrong with the sample code and a suggestion for one or more better ways to code equivalent functionality without the initial pitfall.

Contributor Bio
David Mertz has been a member of the Python community for 25 years. He has taught Python to scientists, developers coming from other languages, and to programming neophytes. He was a director of the Python Software Foundation (PSF) for six years and continues to serve on, or chair, a variety of PSF working groups. David is the author of several technical books and has given keynote addresses at numerous international programming conferences.
Bayesian Data Science with Python
Simulation and Probabilistic Programming
Eric Mazur, Hugo Bowne-Anderson

Key Selling Points:
Leverage your Python skills to build powerful Bayesian analysis models for handling a world of uncertainty

- Master the concepts and ingredients of probabilistic programming with PyMC4
- Effectively construct, fit, and evaluate Bayesian models
- Use statistical simulation techniques to build your intuition as you work with statistical models
- Build or modify small-to-medium-complexity statistical models of your own data, and use "cookbook" examples to jumpstart all your model-building
- Use PyMC4 and ArviZ together to critique and improve any probabilistic model
- Explore general principles and a principled workflow you can use with any Bayesian analysis project
- Ideal for any Python programmer, data analyst, or AI/ML user who wants to apply Bayesian techniques to solve problems that can't be solved any other way

Summary
Bayesian probabilistic techniques can help you create models that reflect randomness and noise in principled ways, to make better decisions about the world as it actually is. Now, there's a practical, accessible, project-based guide to Bayesian analysis that helps you quickly start solving real problems with widely-used Python packages such as PyMC4 and ArviZ. Ideal for programmers, data analysts, machine language users, students, and many others, Bayesian Data Science with Python covers all you need, and provides well-annotated cookbook examples that offer a solid foundation for your own modeling.

Experienced data scientists Hugo Bowne-Anderson and Eric J. Ma start by introducing fundamental concepts every Bayesian modeler needs to understand, supporting these with working code, and preparing you to move from canned statistical methods towards principled statistical workflow. Next, they build your practical mastery through "case story" projects based on their experience - from measuring the impact of website changes to capturing insights from high throughput biological measurements.

Contributor Bio
Hugo Bowne-Anderson (New York, NY), Data Scientist at DataCamp, has extensive experience teaching data science at institutions such as Yale University and Cold Spring Harbor Laboratory, conferences such as SciPy, PyCon, and organizations such as Data Carpentry. He has developed 25+ courses on the DataCamp platform, reaching more than 300,000 learners worldwide.
The Scrum Anti-Patterns Guide
Challenges Every Scrum Team Faces and How to Overcome Them
Stefan Wolpers

Key Selling Points:
Scrum is simple, but it is not easy. This book compiles the most common challenges that every Scrum Team faces and shows how to overcome them.

- The book takes a hands-on approach, offering insights for course corrections and fixes in the moment for Scrum practitioners.
- The number of organizations adopting agile has seen massive growth due to the pandemic.
- The author has created a large following among Scrum practitioners on several media channels, from blog readers to newsletter subscribers to community members, providing an eager audience for the new book.

Summary
The Scrum Anti-Patterns Guide provides beginners and advanced Scrum and Agile practitioners alike with a guide they can use to better understand why their use of Scrum might be falling short of their expectation, and what they can try to improve. While the beginner may read the Scrum Anti-Patterns Guide end to end, more advanced practitioners will probably delve directly into a specific problem to understand possible solutions.

The book uses the Scrum Guide as a template to structure the content. Scrum anti-patterns are categorized by roles, events, artifacts, and commitments and their combinations. For example, the Scrum Anti-Patterns Guide explores the Sprint Planning in general before delving into the contributions of individual roles of participants: How are Scrum Masters, Product Owners, Developers, and stakeholders or line-managers, respectively, contributing to the overall anti-patterns of the Sprint Planning?

Contributor Bio
Stefan Wolpers is a Professional Scrum Trainer with Scrum.org, an Agile Coach, and Scrum Master. Additionally, he is a licensed facilitator of the Agile Fluency™ Team Diagnostic. His agile coaching expertise focuses on scaling product delivery organizations of fast-growing, venture-capital funded startups, and transitioning existing product teams in established enterprise organizations.
Facilitating Professional Scrum Teams
Improve Team Alignment, Effectiveness, and Productivity
Patricia Kong, Glaudia Califano, David Spinks

Key Selling Points:
The practical guide to expert facilitation in Scrum environments: all the tips, tools, and case studies you need!

- Proven techniques for facilitating Scrum teams, specific guidance on how, when, and why to use them, and expert insight into outcomes
- Shows how skillfully facilitating a Scrum team's interactions and dynamics can unleash the entire team's potential
- Reaches a growing market, exemplified by the introduction and growth of Scrum.org's accredited class in Professional Scrum Facilitation Skills

Summary
For Scrum to deliver maximum value, Scrum teams, participants, and stakeholders must collaborate effectively. This doesn't just happen: it requires expert facilitation. While Scrum's rules are well documented, and much has been written about facilitation in general, there's been little guidance for facilitating the specific interactions that occur on Scrum projects. Now, three leading experts in agile facilitation fill this gap, helping every participant find better ways to collaborate, and to leverage the unique insights and knowledge they each bring to the table.

After concisely reviewing core facilitation principles and theory, the authors present representative scenarios illustrating common Scrum Team challenges, and showing how to adapt facilitation best practices to overcome them. You'll walk through facilitating sprint planning, daily Scrum, sprint review, the sprint itself, retrospectives, backlogs, and more. For each Scrum task, the authors reveal which facilitation approaches to use, when to use them, how they can be combined, and what they can help you achieve.

Contributor Bio
Patricia Kong (Wakefield, MA) helps organizations thrive in a complex world by focusing on enterprise innovation, leadership and teamwork. A people advocate, she is fascinated by organizational behavior and misbehavior. She is a co-author of The Nexus Framework for Scaling Scrum, The Guide to Evidence-Based Management, and Nexus Guide, as well as a sought-after speaker at industry conferences and events.

Glaudia Califano (Milton Keynes, UK) is an agile and lean practitioner and mentor, working both with and within teams. She has served as Courseware Team Developer for Scrum.org, and as Scrum Master / Mentor and Agile Change Coach for Office Depot. With David Spinks, she co-founded Red Tangerine to release people's potential and transform work environments.

David Spinks (Milton Keynes, UK) has served as an Agile trainer and coach, Scrum Master, product owner, Kanban Service Delivery Manager, team leader and software developer in industries including finance, eCommerce, social housing and education. He is a Kanban University Accredited Kanban Trainer (AKT) and Kanban Coaching Professional (KCP), a Scrum.org Professional Scrum Trainer (PST) and an ICAgile Authorized Instructor. He is a co-author of Mastering Collaboration in a Product Team and Adopting Agile Across Borders. With Glaudia Califano, he co-founded Red Tangerine to release people's potential and transform work environments.
Essential Test-Driven Development

Robert C. Myers

Key Selling Points:

- Understand TDD’s real practical value for individual contributors as well as organizations
- TDD for the next generation: today’s best ways to begin (and then master) TDD
- Use TDD, Relentless Refactoring, and Characterization Testing to improve existing code, and maintain and extend software products
- Master proven team collaboration for establishing and preserving a strong TDD practice and a healthy TDD environment

Implement test-driven development (TDD) -- painlessly, professionally, successfully

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- TDD for the next generation: today’s best ways to begin (and then master) TDD
- Use TDD, Relentless Refactoring, and Characterization Testing to improve existing code, and maintain and extend software products
- Master proven team collaboration for establishing and preserving a strong TDD practice and a healthy TDD environment

Summary

Test-Driven Development (TDD) is at the heart of low-defect agile software development, enabling incremental development and emergent design without degrading quality. By allowing software teams to create comprehensive regression tests that immediately pinpoint tiny errors, it gives them confidence ...

Test-Driven Development (TDD) is at the heart of low-defect agile software development, enabling incremental development and emergent design without degrading quality. By allowing software teams to create comprehensive regression tests that immediately pinpoint tiny errors, it gives them confidence to enhance functionality with incredible speed.

Essential Test-Driven Development will help you discover how TDD helps developers take back the joy of software development, as you glimpse of the future of TDD and software development as a profession. Leading TDD coach and instructor Rob Myers shares his experiences, suggestions, and stories, plus focused and fun self-directed Java, C#, C++, and JavaScript lab work from his acclaimed TDD course.

Throughout, this guide reflects the author’s unsurpassed experience practicing TDD on real production code and helping hundreds of teams adopt TDD practices.

Contributor Bio

Rob Myers (San Francisco Bay Area, CA) has been a professional software developer since 1986. In 1998, his passion for programming was rekindled when he learned about test-first and refactoring techniques (precursors of TDD). Myers and the teams he coached built quality production software using these techniques until 2004. In 2002, he began delivering courses in Agile and TDD practices.
Unlocking Business Agility with Evidence-Based Management
Satisfy Customers and Improve Organizational Effectiveness
Patricia Kong, Todd Miller, Kurt Bittner, Ryan Ripley

Key Selling Points:
Accomplish customer outcome-based goals, as you help your organization use evidence-based management to rediscover its purpose

- Clarify your goals, move towards them in uncertain and fast-changing times, and use agile metrics to demonstrate your performance
- Apply empiricism and experimentation to find solutions for complex problems
- Learn from real-world anonymized case studies from the authors' personal experience
- Part of The Professional Scrum Series, co-published with Scrum.org
- Recommended reading for Scrum.org’s Professional Agile Leader (PAL) and Professional Agile Leader - Evidence-Based Management (PAL-EBM) certifications

Summary
Learn how to accomplish customer outcome-based goals and help your organization rediscover purpose with evidence-based management practices.

Unlocking Business Agility with Evidence-Based Management: Satisfy Customers and Improve Organizational Effectiveness teaches you empirically-driven management. This book describes how organizations can use goals to reconnect their work to improving the value that they deliver to customers, and to escape the trap they often create for themselves of having goals that are internally focused. Evidence-based management enables organizations to become adaptable to feedback. Most organizations find themselves with a deeply entrenched planning-centered culture that determines everything from how work is funded, to how success is measured, to how people are rewarded. It takes time for an organization’s culture to evolve into a feedback-oriented culture and there are inevitably setbacks along the way. This book will guide organizations in their efforts to develop feedback-oriented cultures.

Contributor Bio
Patricia Kong helps organizations thrive in a complex world by focusing on enterprise innovation, leadership, and teams. She is a people advocate and fascinated by organizational behavior and misbehaviors. She is co-author of The Nexus Framework for Scaling Scrum (Addison-Wesley, 2017).

Todd Miller has practical experience as a Scrum Master, Product Owner, Software Developer, and Agile coach on a variety of technical and creative projects across a multitude of industries. He has been a professional Scrum trainer with Scrum.org since 2016.

Kurt Bittner has been delivering working products in short, feedback-driven cycles for more than 40 years, and has helped many organizations do the same. He is particularly interested in helping people form strong, self-organizing, high-performance teams that deliver solutions that customers love, and helping organizations use empirical feedback to achieve customer outcome-focused goals.

Ryan Ripley is a Professional Scrum Trainer with Scrum.org, and has experience as a software developer, manager, director, and Scrum Master at various Fortune 500 companies in the medical device, wholesale, and financial services industries. He is the host of "Agile for Humans," the top agile podcast on iTunes. He recently co-wrote Fixing Your Scrum: Practical Solutions for Common Scrum Problems.
The Async-First Playbook
Remote Collaboration Techniques for Agile Software Teams
Sumeet Gayathri Moghe

Key Selling Points:
The hands-on, full-color guide to improving the effectiveness of remote work: master better asynchronous approaches to distributed software development

- Reinvent agile practices for today’s asynchronous work environments: revamp kickoffs, sprints, stand-ups, pair programming, retrospectives, and more
- Discover new best practices for culture and leadership optimized for today’s remote realities
- Help your teams overcome daunting obstacles to work-life balance, meaningful work, and diversity and inclusion
- Hands-on, nuts-and-bolts practices, proven in the trenches - not just theory or handwaving

Summary
Reimagining Agile for Distributed and Remote Teams

Distributed work is now inevitable, but conventional agile approaches are too "synchronous" for today’s remote teams. Meetings, ceremonies, and rituals can become unsustainable when teams are scattered across the globe. The result: burnout, constant interruptions, a lack of deep work, poor work-life balance, greater frustration, and workplaces with poor diversity.

In The Async-First Playbook, Thoughtworks Principal Product Manager Sumeet Gayathri Moghe provides tools and techniques to embed remote-native, asynchronous practices into traditional agile methods, making remote work more efficient, inclusive, thoughtful, and fun.

Drawing on extensive experience leading distributed teams, Moghe addresses the "nuts and bolts" of specific practices and the crucial "softer" elements such as culture, mindset, and leadership. Short, practical chapters show how to adapt traditional agile techniques such as sprints and pair programming for the realities of today’s distributed environments.

Contributor Bio

Sumeet Gayathri Moghe, Principal Product Manager at Thoughtworks, is an agile specialist with 20+ years of IT consulting experience. He has helped clients deliver new products and adopt agile ways of working in travel, payments, financial services, education, analytics, consulting, retail, and beyond. Moghe has always worked in distributed teams, and went "all-remote" in 2017, long before it was commonplace.
Software as a Product
Bridging the Gap Between Technology and Product Development
Steffen Hartmann

Key Selling Points:
Create software products with a product mindset that includes all parts of an organization, enabling true cooperation and bridging the gap between technology and product to better drive the development of Software as a Product.

- Shows how to achieve convergence between technology and product that is essential for organizations striving to succeed in digital transformation efforts
- Covers both product management and software design
- Helps break down the wall between software and product disciplines while not limiting readers to one point of view
- Fosters a shared understanding between product and technology that uncovers new ways of cooperating for all roles involved in developing software products
- Uses case studies to illustrate the points covered

Summary
Software is eating the world, and software products have taken control of our daily businesses and lives. Products are everywhere around us. This book is about the essential characteristics of software as a product, and how to create new ways of cooperation and collaboration between technology development and product development. This book does not rely on established schools of thought about software development and product development. It offers a fresh approach to developing software as a true product. It is a book that shows how cooperation between technology and product at an architectural level can connect both worlds. This book offers guidelines and approaches to help organizations successfully deliver Software as a Product (SaaP). It teaches the first principles of product development and how to apply them cross-functionally. It does these things through the framework of Shu-Ha-Ri. (*Shu-Ha-Ri is a way of thinking about how you learn a technique. The name comes from Japanese martial arts, particularly Aikido.*

Contributor Bio
As a product manager, Steffen Hartmann and his agile teams oversee demanding customer projects. He constantly rethinks products and brings product development on track with software development to achieve his goal to create better and more sustainable products. Steffen has been focusing on product development, User Experience, mobile, and team communication in his daily business for more than a decade.
Software Architecture and Decision-Making
Leveraging Leadership, Technology, and Product Management to Build Great Products
Srinath Perera

Key Selling Points:
Make better decisions about software architecture, by mastering the nexus of technology, leadership, and product management

- Master five key questions for understanding uncertainty, and seven essential principles for optimizing judgment calls and tradeoffs
- Learn how diverse elements of a modern macro architecture design fit together, and get more value with less cost and effort
- Approach designs systematically; first at macro level and then at individual service level
- Explore default design choices for common technical issues, and when to prefer other solutions
- For wide audiences of technical leaders, software architects, senior software engineers, and other decision-makers

Summary
Leverage leadership knowledge to make better software architecture decisions. Think deeply but implement slowly.

The overarching goal of software systems (hence, for software architecture) is to build systems that meet quality standards and that provide the highest return on investment (ROI) in the long run or within a defined period of time.

A great product requires a combination of technology, leadership, and product management (including UX). Leadership is primarily about managing uncertainty and making the right judgment. To build great products, technical leaders need to combine technology, leadership, and product management knowledge, and make the right decisions. Many technical mistakes come from the gap between knowledge about these three items and judgment.

In Software Architecture and Decision-Making, Srinath Perera explains principles and concepts that software architects must understand deeply and how to employ those principles to manage uncertainty.

Contributor Bio
Srinath Perera has been an Apache open source developer for the last 20 years. He has played a major role in the architecture of Apache Axis2, Apache Airavata, WSO2 CEP (Siddhi), and WSO2 Choreo. He has designed two SOAP engines and helped build four. He is a committer (a developer who can commit to a code base) for Apache Axis, Axis2, Apache Geronimo, and Apache Airavata.
Balancing Coupling in Software Design
Successful Software Architecture in General and Distributed Systems
Vlad Khononov

Key Selling Points:
Why modular distributed systems still fail to deliver easy, rapid change – and how to solve the problem

- Harness coupling as a purposeful software design tool, and improve your designs whether you use microservices or not
- Get practical guidance for designing any modular distributed system
- The latest book in Vaughn Vernon’s important Addison-Wesley Signature Series – by Vladik (Vlad) Khononov, a world-renowned expert in modern software architecture

- Harness coupling as a purposeful software design tool, and improve your designs whether you use microservices or not
- Get practical guidance for designing any modular distributed system
- The latest book in the important Addison-Wesley Signature Series from Vaughn Vernon—by Vladik (Vlad) Khononov, a world-renowned expert in modern software architecture

Summary
This book identifies the deeper problem—how software architects and designers approach coupling – and introduces an important new approach for creating more successful designs whether you use microservices or not. Instead of blindly avoiding coupling, leading software architecture expert Vladik (Vlad) Khononov proposes a novel method that transforms it into a powerful design tool: “balanced multi-dimensional coupling.”

Microservices become immensely popular because it promised to help organizations build loosely-coupled systems that allow for fast, easy change. But microservices systems haven’t always kept that promise. This book identifies the deeper problem -- how software architects and designers approach coupling – and introduces an important new approach for creating more successful designs whether you use microservices or not.

Instead of blindly avoiding coupling, leading software architecture expert Vladik (Vlad) Khononov proposes a novel method that transforms it into a powerful design tool: “balanced multi-dimensional coupling.” Khononov begins by surveying existing methods of evaluating coupling, and illuminating their strengths and limitations in the context of modern distributed systems. Next, he introduces a new multi-dimensional coupling model, and demonstrates how to harness it to build modular software.

Contributor Bio

Vladik (Vlad) Khononov (Israel) is a software engineer with more than 20 years of industry experience working for companies large and small in roles ranging from webmaster to chief architect. A long-time proponent of domain-driven design and evolutionary architecture, he currently helps companies make sense of their business
Patterns of Distributed Systems
Unmesh Joshi

Key Selling Points:
30 essential patterns for every architect and developer working with modern enterprise platforms and frameworks

- Focuses on the unique programming and synchronization challenges presented by distributed systems
- Demonstrates patterns with working Java code examples
- Presents solutions you can apply across multiple systems, including Amazon S3, EKS, Azure CosmosDB, MongoDB, Kafka, Kubernetes, Cassandra, Akka, and more
- Offers insights you can use in making better technology choices and architectural decisions, and in confidently traversing open source code bases

Summary
Learn How to Better Understand Distributed System Design and Solve Common Problems

Enterprises today rely on a range of distributed software handling data storage, messaging, system management, and compute capability. Distributed system designs need to be implemented in some programming language, and there are common problems that these implementations need to solve. These problems have common recurring solutions. A patterns approach is very suitable to describe these implementation aspects.

Patterns by nature are generic enough to cover a broad range of products from cloud services like Amazon S3 to message brokers like Apache Kafka to infrastructure frameworks like Kubernetes to databases like MongoDB or Actor frameworks like Akka. At the same time the pattern structure is specific enough to be able to show real code. The beauty of this approach is that even if the code structure is shown in one programming language (Java in this case), the structure applies to many other programming languages

Contributor Bio
Unmesh Joshi is a Principal Consultant at Thoughtworks with 22 years of industry experience. He is a software architecture enthusiast, who believes that understanding principles of distributed systems is as essential today as understanding web architecture or object-oriented programming was in the last decade. For the last two years he has been publishing patterns of distributed systems on martinfowler.com
Clean Architecture with .NET
Dino Esposito

**Key Selling Points:**
Shows how to apply the principles in Bob Martin's *Clean Architecture* in .NET and ASP.NET development

- Build a complete reference application, from start to finish
- Use .NET's power to achieve modularity in web applications: build high-value solutions without unnecessary complexity
- By Dino Esposito, world-renowned expert in .NET development and architecture

**Summary**
As more software professionals question the benefits of microservices, many find that the "modular monolith" architectural pattern can be a more effective, efficient, and manageable solution for their own systems. Microsoft.NET and ASP.NET are exceptionally well suited to this approach. However, effective modularity doesn't come automatically: it requires techniques and precautions that are often described as "clean architecture." In this book world-renowned .NET author and developer Dino Esposito has written the first comprehensive guide to successfully modularizing web applications with today's .NET and ASP.NET.

*Clean Architecture with .NET* first presents the rationale behind modular software architectures, considers today's leading approaches, and identifies the architectural principles embodied by each of them. Next, Esposito walks you through building a complete reference application for modular monoliths that makes it easy to implement individual services.

**Contributor Bio**
Dino Esposito (Rome, Italy) has written more than twenty books and 1,000 articles through his more than thirty year programming career. His content has promoted the professional growth of thousands of .NET developers and architects worldwide. After two years of consulting in energy, he now leads the IT team that built and maintains an ASP.NET platform that runs worldwide operations for professional tennis and leads another team building ASP.NET software for digital therapies at the Vatican's hospital.
Absolute Beginner's Guide to Algorithms
Kirupa Chinnathambi

Key Selling Points:
The easy, friendly way to master the algorithms and data structures every programmer needs to know

- Illuminates concepts and theory with working JavaScript implementations
- Helps you write more efficient code, no matter what programming languages you use
- Comprehensive coverage: arrays, hash tables, linked lists, stacks, queues, graphs, recursion, performance optimization, searches, sorts, A*, and much more
- Includes many popular examples, from Towers of Hanoi to ciphers and the Fisher-Yates Shuffle
- Author’s companion video available to make algorithms and data structures even easier to understand
- Perfect for developers who need to demonstrate understanding of algorithms and data structures in job interviews

Summary
As datasets grow, and applications become more diverse and complex, programmers increasingly need a practical working understanding of algorithms and data structures. Whatever languages you use, this knowledge will help you solve more problems, write more effective code, and ace interviews for today’s most desirable programming jobs.

If you've ever thought the subject was too complicated or abstract, this is the friendly guide you've been waiting for. Kirupa Chinnathambi demystifies all the algorithms and data structures you'll need, combining easy-to-understand explanations, working reusable JavaScript implementation examples, and companion video that makes the subject even easier to understand. Both a tutorial and concise reference, Chinnathambi covers all this:

- Data structures: arrays, hash tables, sets, linked lists, stacks, queues, graphs, and more
- Algorithms: recursion, searches, sorts, A*, and other opportunities for program optimization
- Popular examples: Towers of Hanoi, Square Matrix Rotation, Caesar's Cipher...

Contributor Bio
Kirupa Chinnathambi (Kirkland, WA) spends his waking hours giving developers superpowers as a Product Manager at Google. In 1999, before blogging was even a word, he started posting tutorials on kirupa.com. In the years since then, he has written hundreds of articles, written several books, and recorded multiple YouTube training videos for developers.
The AWK Programming Language (2nd Edition)
Alfred V. Aho, Brian W. Kernighan, Peter J. Weinberger

Key Selling Points:
The definitive guide to Awk scripting, from the language's creators - now fully updated

- Refined and improved throughout, with modern examples based on today's versions of Awk
- Includes a complete tutorial for beginners
- Presents full chapters on exploratory data analysis, data processing, reports and databases, text processing, experiments with algorithms, and more
- For Awk users on any platform: Unix, Linux, MacOS, Windows, and beyond

Summary
Awk was developed in 1977 at Bell Labs, and it's still a remarkably useful tool for solving a wide variety of problems quickly and efficiently. In this update of the classic Awk book, the creators of the language show you what Awk can do and teach you how to use it effectively.

Here's what programmers today are saying: "I love Awk." "Awk is amazing." "It is just so damn good." "Awk is just right." "Awk is awesome." "Awk has always been a language that I loved."

It's easy: "Simple, fast and lightweight." "Absolutely efficient to learn because there isn't much to learn." "3-4 hours to learn the language from start to finish." "I can teach it to new engineers in less than 2 hours."

It's productive: "Whenever I need to do a complex analysis of a semi-structured text file in less than a minute, Awk is my tool." "Learning Awk was the best bang for buck investment of time in my entire career." "Designed to chew through lines of text files with ease, with great defaults that minimize the amount of coding you actually have to write to do anything.

Contributor Bio
Alfred V. Aho is Lawrence Gussman Professor Emeritus of Computer Science at Columbia University, and former department chair. Well known for his work on algorithms, data structures, programming languages, compilers, and the foundations of computer science, he has received the ACM A. M. Turing Award and the IEEE John von Neumann Medal.

Brian W. Kernighan was a member of the Computing Science Research Center at Bell Labs and is currently a professor in the Computer Science department at Princeton. He is the co-creator of several programming languages and the co-author of numerous books, including the computing classic, The C Programming Language.

Peter J. Weinberger, currently at Google, has served as chief technology officer at Renaissance Technologies and as leader of computer science research at Bell Labs. He is a Fellow of the AAAS.
Programming with Rust
Donis Marshall

Key Selling Points:
The expert, up-to-date Rust programming guide developers have been waiting for!

- Overcome Rust's steep learning curve through short, easy-to-consume chapters supported with well-designed companion videos
- Reflects the latest versions of Rust, and thoroughly demystifies innovative features such as lifetimes, ownerships, and patterns
- Practical, focused, complete, and up-to-date: a Rust guide that's ideal for newcomers and professional developers alike

Summary
Rust's exciting innovations have made it the most loved programming language in Stack Overflow's influential survey for five straight years—but its steep learning curve has made many other developers reluctant to dive in. Now, with a growing commitment to Rust from many of the world's leading development organizations, it's the perfect time to start—especially now that there's an up-to-date, accessible, example-rich book to guide you. Long-time enterprise developer Donis Marshall has made Rust easier to understand than ever, with a guide expertly organized into short, bite-sized chapters and supported with focused video tutorials that bring you up-to-speed fast.

Writing for developers at all levels, Marshall starts with the absolute basics, and thoroughly demystifies the Rust technical advances that make it so attractive for next-generation development. Everything's here, from types and assignments to ownership, lifetimes, traits, and crates.

Contributor Bio
Donis Marshall (San Francisco Bay Area, CA) has 20+ years of experience in designing and building enterprise software with Microsoft technologies for leading companies in multiple industries. An endorsed trainer for Microsoft Global Learning Services, he has trained Microsoft developers and engineers for many years. His Microsoft Press books include Solid Code and Programming Microsoft Visual C#.
Essential C# 12.0 (8th Edition)
Mark Michaelis

Key Selling Points:
An extremely well-written and well-organized guide to C# 12, which will appeal to programmers at all levels of experience

- Offers complete, in-depth coverage of all the new features of C# 11 and C# 12
- Concise yet deep coverage with no fluff
- Appeals equally to programmers new to C# as well as those who have used a previous version of C#
- Design Guidelines for programming in C#

Summary
The Comprehensive, Expert Guide to C# 12.0 for Programmers at All Levels

Updated for the Microsoft C# 12.0 Long Term Support (LTS) release, Essential C# 12.0 is a well-organized, no-fluff C# guide, suitable for every programmer. Building on the proven high-value content of previous editions, world-class C# expert Mark Michaelis illuminates key enhancements in C# 12, including any-type aliases, inline arrays, default lambda expression parameters, expanded support for primary constructors, and experimental interceptors.

Michaelis presents a comprehensive tutorial and reference for the entire C# 12 language, helping you accelerate your journey to expert-level C# programmer. Succinct examples illustrate central constructs, and modern coding guidelines help you minimize bugs and write code that’s easier to evolve. To help you quickly find what you need and maintain compatibility, the book includes version-specific indexes of recent C# versions, and icons and notes identifying when each innovation was introduced.

Contributor Bio
Mark Michaelis is founder, chief technical architect, and trainer for IntelliTect. A world-class C# expert, he has been a Microsoft Regional Director since 2007 and a Microsoft MVP for 25 years. He founded the Spokane .NET Users Group, co-organizes the annual TEDx Coeur d'Alene events, and is adjunct professor at Eastern Washington University.
Network Automation with Go
Vinit Jain

Key Selling Points:
All the knowledge you need to program networks and use network automation tools with the best language for the job: Go

- Use programmability and automation to rapidly deploy new network infrastructure, manage existing infrastructure, improve agility, and reduce cost
- Covers all Cisco network operating system environments: IOS-XE, IOS-XR and NX-OS
- Helps you achieve better code quality, concurrency, and application performance than is typically possible with Python
- Requires minimal knowledge of computer networking: explains the concepts you need to create high-value network programmability and automation solutions

Summary
As networks grow ever larger and more complex, automation is crucial to their success, and developers that can write effective automation tools and applications have a major competitive advantage. This code must be optimized for quality, concurrency, performance, and scalability. This is far easier to achieve with Go than Python or other conventional languages.

*Network Automation using Go* is a start-to-finish guide to using Go to build scalable and high performing network automation tools for enterprise, service provider, and data center environments. You’ll first gain expertise and confidence with key Go language facilities, from concurrency to data serialization, RESTful APIs, RPCs, and WebSockets. Next, you'll use your new Go skills to interact with network elements and automate operations and tasks across your network infrastructure. Along the way, you’ll also learn how to make the most of the powerful Gornir package for network automation.

Contributor Bio
Vinit Jain, CCIE No. 22854 (R&S, SP, Security & DC), is a Senior Technical Leader for Network Engineering at Cisco focused on architecting network infrastructure for edge computing solutions. He previously worked as a Network Development Engineer as part of Amazon's backbone network operations team and as a technical leader at Cisco Technical Assistance Center (TAC)
Serverless as a Game Changer

How to Get the Most Out of the Cloud
Joseph Emison

Key Selling Points:
Use serverless development to build and deploy software faster, better, and at lower cost

- Evolve your cloud tech stack and mindset to finally gain the full benefits of the cloud
- Use serverless architectures and managed services to offload tasks that don't add value
- Real-world case study takes you from where you are to where you want to be
- Exclusive managed services directory helps you find resources to streamline your serverless transition
- The latest book in The Addison-Wesley Signature Series: Vaughn Vernon—expert guides to improving software development maturity and succeeding with business-centric practices

Summary
Leverage the “serverless mindset” to build and deploy software faster, better, and with less expense.

In this definitive guide, Joseph Emison shows how to leverage “serverless” for maximum customer value. He reveals why mindset is crucial to modern IT strategy and explains why and how to move toward a truly serverless mindset.

Many organizations are falling short when it comes to leveraging the cloud. Drawing on his experience as a pioneering CTO across multiple industries, Emison shows why and how you can gain immense business value from the cloud. While many serverless adopters focus on converting and building apps on serverless compute platforms like AWS Lambda, Emison offers better ways to think about your tech stack, optimize build-or-buy decisions, choose the right vendor for each commercial off-the-shelf (COTS) or open-source solution, and draw on the industry’s best managed services.

To help you develop a serverless mindset, Emison includes a case study demonstrating a real-world enterprise transition to serverless.

Contributor Bio

Joe Emison is the co-founder and CTO of Branch, a personal lines insurance company. Before Branch, Joe built five other companies as a technical co-founder, across many industries, including consumer electronics, local government, big data analysis, and commercial real estate. Joe graduated with degrees in English and Mathematics from Williams College and has a law degree from Yale Law School.
Functional Design
Principles, Patterns, and Practices
Robert C. Martin

Key Selling Points:
The practical guide to designing and writing better, cleaner code with functional programming - from Bob Martin

- Master highly-effective functional design principles, patterns, architectural techniques, practices, and methodologies
- Put functional approaches to work, using the elegant Clojure language
- Start applying functional programming and Clojure in a wide range of projects and environments
- Compare functional, object-oriented, and structured paradigms, make the most of all of them, and judiciously use them together in concert

Summary
A Practical Guide to Better, Cleaner Code with Functional Programming

In *Functional Design*, renowned software engineer Robert C. Martin ("Uncle Bob") explains how and why to use functional programming to build better systems for real customers. Martin compares conventional object-oriented coding structures in Java to those enabled by functional languages, identifies the best roles for each, and shows how to build better systems by judiciously using them in context.

Martin's approach is pragmatic, minimizing theory in favor of "in the-trenches" problem-solving. Through accessible examples, working developers will discover how the easy-to-learn, semantically rich Clojure language can help them improve code cleanliness, design, discipline, and outcomes. Martin examines well-known SOLID principles and Gang of Four Design Patterns from a functional perspective, revealing why patterns remain extremely valuable to functional programmers, and how to use them to achieve superior results.

Contributor Bio
Robert C. Martin ("Uncle Bob") wrote his first line of code at the age of 12 in 1964 and has been employed as a programmer since 1970. He is cofounder of cleancoders.com, offering online video training for software developers, and is founder of Uncle Bob Consulting LLC, offering software consulting, training, and skill development services to major corporations worldwide.
MySQL Crash Course (2nd Edition)
Ben Forta

Key Selling Points:
The fast, easy way to get productive with MySQL – now extensively updated for MySQL 8!

- 30 highly focused hands-on lessons, now with color-coded examples and new challenges in every chapter
- New coverage includes: JSON, security enhancements, table encryption, window functions, and much more
- Covers all you need to know - from basic data inserts to stored procedures, triggers, and performance optimization
- By world-renowned author Ben Forta, author of the world's best-selling guide to SQL

Summary
MySQL is one of the world's most popular database management systems, powering everything from Internet powerhouses to individual corporate databases to simple end-user applications. **MySQL Crash Course, Second Edition** will teach you everything you need to be immediately productive with today's powerful versions of MySQL. Thoroughly updated for MySQL 8, this full-color guide offers extensive new coverage, including: JSON support, modern security features, table encryption, window functions, and more. Best-selling author Ben Forta has added color-coded examples throughout, as well as realistic new hands-on challenges at the end of every chapter. Step by step, you'll learn how to do all this, and much more:

- Retrieve, sort, filter, summarize, group, and manipulate data
- Search using regular expressions, and perform full-text searches
- Create calculated fields
- Work with subqueries
- Join tables, create advanced joins, and combine queries
- Insert, update, and delete data
- Create and manipulate tables

Contributor Bio

**Ben Forta** (Oak Park, MI), Adobe Systems Senior Director of Education Initiatives, spends much of his time teaching, talking, and writing about technology products, coding and application development, creativity, and digital literacy, and helping to shape the future of Adobe products. A best-selling author, his books have 750,000+ copies in print in English alone, and have been translated into 15 languages.
Multi-Factor Authentication (MFA) Complete Guide
Ned Zaldivar, James Hill

Key Selling Points:
The complete, practical guide to designing, implementing, and operating multi-factor authentication

- Use MFA to prevent identity theft, secure remote access, and deter password compromise
- Discover product-agnostic best practices for MFA configuration, administration, and troubleshooting
- Explore the full spectrum of MFA use cases, technology options, and risks
- Compare the latest biometric options, from behavioral biometrics to TouchID and FaceID
- Plan for next steps beyond MFA

Summary
With over 15 billion stolen credentials to work with, cybercriminals can hijack accounts, discover company secrets, compromise personal information and health care records, and steal virtually any high-value digital asset. To help deter cybersecurity disaster, more and more organizations rely on Multi-Factor Authentication (MFA). Now, there's a single source, vendor-neutral guide to today's leading MFA technologies, applications, best practices, and operations. Enterprise security experts James Hill and Ned Zaldivar reveal how MFA can prevent identity theft, unauthorized remote access, and other attacks, and guide you through configuring, operating and troubleshooting popular solutions across multiple use cases. You'll find proven techniques for integrating MFA into your current environment, leveraging MFA standards, using SMS and push notifications, and much more. A full chapter on biometrics introduces password-less systems, behavioral biometrics, WebAuthn, TouchID, and FaceID.

Contributor Bio
James Hill (CCIE No. 29455, CISSP; Houston, TX Area) is co-owner and CTO of H5 Strategic Alliances, LLC, an IT consulting firm specializing in cybersecurity, network access control, architectural design, implementation, and support. He has designed and implemented infrastructure and security solutions at several Fortune® 500 companies, working with a wide spectrum of security, access control, and routing/switch technologies. His most recent experience includes designing and implementing new network services, segmenting Payment Card Industry (PCI) and Process Control Network (PCN) networks, implementing next-generation firewalls, and creating network technical runbooks.

Ned Zaldivar (Houston, TX Area) has 30 years of industry experience. As Multi-domain Technical Solutions Architect at Cisco, he helps leading global enterprises address cybersecurity problems ranging from remote access to Zero Trust with Secure Access Service Edge (SASE). Within Cisco, he brings the customer’s voice to help Product Management and Engineering teams bring new products, features and solutions to market. His technology specialties include Next Generation Firewalls, VPN, PKI, Zero Trust, and SASE.
The Art and Science of UX Design
A step-by-step guide to designing amazing user experiences
Anthony Conta

Key Selling Points:
A full-color, step-by-step guide to building world-class user experience

- Covers all facets of human-centered design, including using empathy as a design tool
- Guides you through problem definition, ideation, prototyping, testing, implementation, iteration, and more
- Based on a curriculum developed by an award-winning, internationally recognized designer: packed with real-world examples and hands-on activities

Summary
Today, every product or service needs to delight its users and that means delivering an outstanding user experience (UX). In this full-color guide, leading user experience designer Anthony Conta guides you step by step through crafting these exceptional user experiences. The Art and Science of UX Design introduces a complete human-centered design framework for success, using practical examples based on his pioneering experience in the field.

Learn to apply design thinking to understand your users’ wants, needs, goals, and frustrations as you transform empathy into one of your most powerful design tools. Once you’ve defined the right problems, you’ll master proven ideation techniques to quickly create promising solutions. You’ll walk through prototyping preliminary designs, testing and refining them based on users’ actual reactions, and clearly communicating all you’ve learned so colleagues can build what you’ve envisioned. Finally, you’ll learn practical ways to continually iterate and improve your offerings so they stay competitive (and delightful) far into the future.

Contributor Bio
Anthony Conta’s career in design began when he was four years old, thanks to the carelessness of another student at his school. His mother, Christina, was the school nurse for a K-12 school in New York City. One day, a student forgot their Game Gear in his mother’s office. After a month of asking every student who came in if it was theirs and no one claiming it, she gave it to her son and opened his world.
A Project Guide to UX Design (3rd Edition)
For User Experience Designers in the Field or in the Making
Russ Unger, Carolyn Chandler

Key Selling Points:
The definitive guide to User Experience (UX) design - now extensively updated to reflect the field's growing maturity and sophistication

- Now fully reflects agile, Scrum, lean, and iterative approaches to UX design
- Adds extensive coverage of discovery, workshops, mapping, and development/release processes
- Contains thoroughly updated coverage of project ecosystems, user research, personas and profiles, information architecture, design testing, and much more
- Ideal for newcomers to UX design for any industry, product, or service - and for experienced UX/UI professionals who need to up-level their skills

Summary
User Experience (UX) design is now a core expectation for virtually all products and services, and today's UX teams must help their organizations deliver exceptionally useful, usable, and accessible offerings while also serving stakeholder goals and missions. To achieve these goals, UX professionals must master and apply both traditional and new skills and best practices in increasingly complex, agile, and iterative environments. For more than a decade, UX students and practitioners have turned to A Project Guide to UX for the authoritative, practical, and comprehensive guidance they need. This new Third Edition has been thoroughly revised and improved to support UX designers in today's roles in today's organizations.

Renowned UX design leaders Russ Unger and Carolyn Chandler guide you through a complete modern UX development process, sharing valuable new insights into project ecosystems, discovery, design workshops, customer journey mapping, research-based user personas and profiles.

Contributor Bio
Russ Unger (Chicago, IL), Chief Experience Officer at IntelliBridge, leads execution and delivery of the IntelliBridge Experience practices, including User Experience Design, User Interface Design, Content Strategy, and Marketing Strategy. These practice areas blend human-centered strategies and commercial sector best practices to design outstanding products, services, and processes. As the first Experience Design Director at 18F, GSA's internal office to support the modernization and digital transformation of U.S. government services, Unger helped build and shape the team responsible for ensuring a user-centered approach to every engagement. Earlier, as Experience Design Director at GE Capital Americas, he helped stand up a Center of Excellence focused on bringing a modern, human-centered approach to robust legacy applications. He is co-author of Designing the Conversation: Techniques for Successful Facilitation and Speaker Camp: A Self-Paced Workshop for Planning, Pitching, Preparing, and Presenting at Conferences.

Carolyn Chandler (Chicago, IL), Director of User Experience, Eight Bit Studios, has worked in User Experience Design for more than twenty years, building on her deep interests in psychology and anthropology. Her current roles include design strategy and leadership, interaction design, and user research and modeling. She is the co-author of Adventures in Experience Design with Anna van Slee. Carolyn was named one of Chicago's Tech 50 by Crain's magazine.
Talk to the Elephant
Design Learning for Behavior Change
Julie Dirksen

Key Selling Points:
A full-color, start-to-finish guide to designing learning experiences that create real, lasting behavior change

- Powerful learning and training techniques backed by science, research, and real-world experience
- Thoroughly covers the realistic role of training, behavior change mechanisms, motivation, value assessment, and problem diagnosis/analysis
- Presents complete strategies for persuasion, practice, ownership, and more
- Includes a complete behavior-change case study that runs throughout the book, identifying challenges and solutions for every step of the process
- Applicable in any domain that requires behavior change - from healthcare and safety to finance, product design, and marketing

Summary
What do you do when your learners know what to do but still aren’t doing it?

Training is created with the goal of changing learners’ behaviors, but anyone who has created learning experiences knows that there’s a big gap between knowing and doing. You can create an engaging learning experience that informs and helps people remember, but often those people go back to their regular world and continue to do things the same way they always have.

In the last few decades, the fields of psychology, behavioral economics, and other behavioral sciences have brought an enormous amount of scientific research into helping people with behavior change. Only a fraction of that research has made its way back into learning design.

*Talk to the Elephant: Design Learning for Behavior Change* shows you how to add critical tools to your learning design toolbox to affect behavior change. You’ll find out how to use frameworks and strategies from behavioral science to help you research and analyze challenges, feel more confident that you’re solving the right problem, and design and test solutions that can help people with difficult behavior changes.

Contributor Bio
JULIE DIRKSEN is an international writer, speaker, and workshop facilitator for professional organizations like the Association for Talent Development, the Learning Guild, and others. She is an award-winning translator of research into practice to help workplace practitioners.
CompTIA Security+ SY0-701 Exam Cram (7th Edition)
Martin M. Weiss

Key Selling Points:
The smartest, fastest, most effective preparation for CompTIA's brand-new Security+ Exam!

- Fully reflects major changes in the new Security+ SY0-701 exam - including more how-to help, and more coverage of security scenarios
- Designed to help candidates rapidly assess where they stand - and quickly master what they need to learn
- Includes test-taking strategies, time-saving tips, Exam Notes, and two practice exams

Summary
CompTIA® Security+ SY0-701 Exam Cram, is the perfect late-stage study guide to help you pass the newly updated version of the CompTIA Security+ exam. It provides coverage and practice questions for every exam topic. Extensive prep tools include quizzes, Exam Alerts, and our essential last-minute review Cram Sheet. The powerful Pearson Test Prep practice software provides real-time practice and feedback with two complete exams.

Covers the critical information you'll need to know to score higher on your Security+ SY0-701 exam!

- Assess the different types of attacks, threats, and vulnerabilities organizations face
- Understand security concepts across traditional, cloud, mobile, and IoT environments
- Explain and implement security controls across multiple environments
- Identify, analyze, and respond to operational needs and security incidents
- Understand and explain the relevance of concepts related to governance, risk, and compliance

Exclusive State-of-the-Art Web-based Test Engine with Practice Questions.

Contributor Bio
Marty M. Weiss has spent most of his career in information security and risk management, helping large organizations. Marty holds a bachelor of science degree in computer studies from the University of Maryland University College and an MBA from the Isenberg School of Management at the University of Massachusetts Amherst.
CompTIA Security+ SY0-701 Cert Guide
Lewis Heuermann

Key Selling Points:
The ultimate core self-study guide for the latest CompTIA Security+ SY0-701 exam: the most comprehensive study reference available!

- Fully reflects major changes in the new 2023 Security+ exam, including reorganized domains and updated focus on security operations and security program management
- Two full practice tests based on the real Security + exam
- Memory tables, study strategies, tips, cautions, key terms, troubleshooting scenarios, last-minute review tearsheet, and more

Summary
Learn, prepare, and practice for CompTIA Security+ SY0-701 exam success with this CompTIA Security+ SY0-701 Cert Guide from Pearson IT Certification, a leader in IT certification learning.

CompTIA Security+ SY0-701 Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly.

CompTIA Security+ SY0-701 Cert Guide focuses specifically on the objectives for the CompTIA Security+ SY0-601 exam. The author shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics.

Contributor Bio
With more than a decade of submarine military service and extensive experience in tech and cybersecurity, Lewis Heuermann (Corpus Christie, TX) offers a unique perspective on cybersecurity risk management. As a skilled systems engineer, network engineer, and information assurance analyst, he has become a trusted advisor to C-suite executives and Board members.
Principles and Practices
William Easttom II

Key Selling Points:
The most up-to-date network defense text on the market

- Contains an entire new chapter on AI and ML in security
- Solid coverage of basic cryptography including its history, symmetric key systems, public/private key systems and digital signatures and certificates
- Covers oft-neglected subject areas such as defense strategies, forms of attacks, and policies related to network security
- Contains end-of-chapter exercises, projects, review questions, and plenty of real-world tips

Summary
All you need to know about defending networks, in one book

Clearly explains concepts, terminology, challenges, tools, and skills Covers key security standards and models for business and government The perfect introduction for all network/computer security professionals and students Welcome to today’s most useful and practical introduction to defending modern networks. Drawing on decades of experience, Chuck Easttom brings together updated coverage of all the concepts, terminology, techniques, and solutions you’ll need to be effective.

Easttom thoroughly introduces the core technologies of modern network security, including firewalls, intrusion-detection systems, and VPNs. Next, he shows how encryption can be used to safeguard data as it moves across networks.

You’ll learn how to harden operating systems, defend against malware and network attacks, establish robust security policies, and assess network security using industry-leading standards and models. You’ll also find thorough...

Contributor Bio
Dr. Chuck Easttom is the author of 41 books, including several on computer security, forensics, and cryptography. He is also an inventor with 25 patents and the author of over 70 research papers. He holds a Doctor of Science in cybersecurity, a Ph.D. in nanotechnology, a Ph.D. in computer science, and three master's degrees (one in applied computer science, one in education, and one in systems eng...
John A. Davis, Steve Baca

Key Selling Points:
The complete, in-depth study guide for all VCP-DCV for vSphere 8.x exam objectives

- Our best-selling VMware Cert Guide, updated to cover all elements of the VMware Certified Professional - Data Center Virtualization for vSphere 8 exam
- Covers infrastructure, requirements, vSphere components, integration, installation, configuration, administration, operations, and more
- By a team of well-known, well-regarded VMware authors with a proven track record of success
- Ideal both for new VCP-DCV candidates and for 100,000+ VCPs who need to re-certify

Summary
VCP-DCV for vSphere 8.x Official Cert Guide presents you with an organized test preparation routine using proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly.

- Master Professional VMware vSphere 8.x exam topics
- Assess your knowledge with chapter-opening quizzes
- Review key concepts with exam preparation tasks
- Practice with realistic exam questions in the practice test software

VCP-DCV for vSphere 8.x Official Cert Guide from Pearson IT Certification allows you to succeed on the VMware Certified Professional - Data Center Virtualization for vSphere 8 exam by directly addressing the exam's objectives as stated by VMware. Leading experts John A. Davis, Steve Baca, and Owen Thomas share preparation hints and test-taking tips.

Contributor Bio
John A. Davis, an independent contractor and Senior Integration Architect at MEJEER, LLC, became a VMware Certified Instructor (VCI) and VMware Certified Professional (VCP) in 2004, and he has been a vExpert since 2014. His recent work has involved designing and implementing solutions for hybrid clouds, cloud automation, disaster recovery, and virtual desktop infrastructure (VDI).
Oracle Cloud Infrastructure - Expert Insights for Developers and Architects
Phil Wilkins

Key Selling Points:
The definitive practical exploration of Oracle Cloud technologies and best practices: unsurpassed insights from a team of world-class Oracle experts

- Practical insights from the trenches, by world-renowned Oracle developers, including Oracle Ace Directors, A-Team members, and product manager
- Unsurpassed breadth and depth: converged databases, data visualization, Apex low-code, APIs, integration, DevOps, serverless, Kubernetes, Web 3.0, and much more
- For developers and architects working in all facets of Oracle Cloud development - including OCI newcomers who need to become productive and effective quickly

Summary
The most indispensable resource for Oracle Cloud Infrastructure (OCI) developers, architects, and other technical professionals at all levels!

Oracle Cloud Developer Evangelist and long-time Oracle Ace Director Phil Wilkins has brought together expert-authored, practical content across an unprecedented range of Oracle Cloud Infrastructure (OCI) technologies. In each chapter, a leading expert draws on extensive in-the-trenches experience to demonstrate how you can make the most of one core OCI product, and where it fits into overall Oracle Cloud solutions. From use cases to code, you'll find expert, in-depth coverage of Oracle database-centered technologies, cloud-native development, and integration and platform services, including:

- Converged databases
- Low-code development
- Data intelligence, visualization, and reporting
- JSON
- Serverless approaches
- Kubernetes and service meshes
- Modern Java development
- API monetization
- ACI services and Oracle integration
- Richer user interaction
- Web 3.0

Contributor Bio
Phil Wilkins (Hampshire, England, UK) recently joined Oracle as a Cloud Developer Evangelist and is a long-time Ace Director who has worked with both consulting organizations and Oracle customer organizations. He specializes in cloud-native application development and integration, and has written about these topics in blogs, journals, and three previous books.
Omar Santos

Key Selling Points:
Assessment, review, and practice for the CCNP and CCIE Security Core SCOR 350-701 exam

- Fully revised for the new 2023 1.1 version of the exam
- Book and online materials are packed with features to help candidates master difficult testing methods on actual exams
- Practice tests contain exam-realistic questions that closely mimic the difficulty of the actual exam
- In-depth expert explanations of all protocols, commands, and technologies on the CCNP and CCIE Security Core SCOR 350-701 exam

Summary
CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide (Version 1.1 2023 Update) presents you with an organized test preparation routine using proven series elements and techniques. 'Do I Know This Already?' quizzes open each chapter and allow you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly.

- Master Cisco CCNP and CCIE Security Core SCOR 350-701 exam topics
- Assess your knowledge with chapter-opening quizzes
- Review key concepts with exam preparation tasks
- Practice with realistic exam questions in the practice test software

CCNP and CCIE Security Core SCOR 350-701 Official Cert Guide, from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Best-selling author and leading security engineer Omar Santos shares preparation hints and test-taking tips.

Contributor Bio
Omar Santos is an active member of the security community, where he leads several industry-wide initiatives and standard bodies. His active role helps businesses, academic institutions, state and local law enforcement agencies, and other participants dedicated to increasing the security of the critical infrastructure.

Omar is the author of more than 20 books and video courses.
Anthony Bruno, Steve Jordan

Key Selling Points:
Straight from Cisco: official complete assessment, review, and practice for the newly updated Designing Cisco Enterprise Networks (ENSLD 300-420) exam

- Authoritative coverage of every ENSLD 300-420 exam topic, with all the context and practical examples you need
- Logical, well-organized, and practical coverage of enterprise design, including advanced addressing, routing, and enterprise campus networks; WANs; security/network services, and SDA
- Includes realistic practice tests, plus extensive proven features to help you review more efficiently
- By two of the world’s leading experts in Cisco enterprise networking
- For all candidates pursuing CCNP Enterprise certifications

Summary
CCNP Enterprise Design ENSLD 300-420 Official Cert Guide: Designing Cisco Enterprise Networks, 2/e, from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Expert authors Anthony Bruno and Steve Jordan share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete study package includes

- Thoroughly revised for the 2023 revision of the exam
- A test-preparation routine proven to help you pass the exams
- Do I Know This Already? quizzes, which allow you to decide how much time you need to spend on each section
- Chapter-ending Key Topic tables, which help you drill on key concepts you must know thoroughly
- The powerful Pearson Test Prep Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports

Contributor Bio
Anthony Bruno, CCIE No. 2738, is an architect and technical resource manager with British Telecom (BT) with more than 27 years of experience in the internetworking field. Previously, he worked for International Network Services (INS) and Lucent Technologies, and he was a captain in the U.S. Air Force.
David Hucaby, Jerome Henry

Key Selling Points:
Straight from Cisco: official complete assessment, review, and practice for both of the newly revised CCNP Enterprise wireless exams: ENWLSD 300-425 (design) ENWLSI 300-430 (implementation)

- Authoritative coverage of every ENWLSD 300-425 and ENWLSI 300-430 exam topic, with all the context and practical examples you need
- Logical, well-organized, practical coverage: site surveys, infrastructure, mobility, WLAN high availability, FlexConnect, QoS, multicast, location, security, monitoring, and device hardening
- Covers all wireless network layers; conceptual/theoretical, and practical components; and the entire wireless network lifecycle
- Includes realistic practice tests, plus extensive proven features to help you review more efficiently
- By top experts in Cisco enterprise wireless networking
- For all candidates pursuing CCNP Enterprise certification with a focus on wireless technology

Summary
CCNP Enterprise Wireless Design ENWLSD 300-425 and Implementation ENWLSI 300-430 Official Cert Guide, 2/e, from Cisco Press allows you to succeed on the exam the first time and is the only self-study resource approved by Cisco. The authors share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete study package includes

- A test-preparation routine proven to help you pass the exams
- Do I Know This Already? quizzes, which allow you to decide how much time you need to spend on each section
- Chapter-ending Key Topic tables, which help you drill on key concepts you must know thoroughly
- The powerful Pearson Test Prep Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports
- An online, interactive Flash Cards application to help you drill on Key Terms by chapter

Contributor Bio
David Hucaby, CCIE No. 4594, CWNE No. 292, is a lead network engineer for University of Kentucky HealthCare, where he focuses on wireless networks in a large medical environment. David holds bachelor's and master's degrees in electrical engineering. He has been writingCisco Press titles for twenty years.
CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide (2nd Edition)
Brad Edgeworth, Ramiro Garza Rios, Jason Gooley, David Hucaby

Key Selling Points:

Official assessment, review, and practice for the CCNP ENCOR exam

- The #1 selling CCNP preparation self-study guide, completely revised for the updated exam
- Book and online materials are packed with features to help candidates master difficult testing methods on actual exams
- Practice tests contain exam-realistic questions that closely mimic the difficulty of the actual exam.
- In-depth expert explanations of all protocols, commands, and technologies on the ENCOR exam

Summary

Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for the CCNP and CCIE ENCOR 350-401 exam. Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide, Second Edition helps you master the concepts and techniques that ensure your exam success and is the only self-study resource approved by Cisco. Expert authors Brad Edgeworth, Ramiro Garza Rios, Jason Gooley, and Dave Hucaby share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills.

This complete study package includes

- A test-preparation routine proven to help you pass the exam
- Do I Know This Already? quizzes, which let you decide how much time you need to spend on each section
- Exam Topic lists that make referencing easy

Contributor Bio

Brad Edgeworth, CCIE No. 31574 (R&S and SP), is a SD-WAN technical solutions architect at Cisco Systems. Brad is a distinguished speaker at Cisco Live, where he has presented on various topics. Before joining Cisco, Brad worked as a network architect and consultant for various Fortune 500 companies.
Brad Edgeworth, Ramiro Garza Rios, David Hucaby, Jason Gooley, Raymond Lacoste

Key Selling Points:
Revised editions of the #1 selling CCNP preparation self-study guides in a value-priced bundle
- Heavily discounted price when purchasing both books together in this package
- Book content is fully updated to cover all the new CCNP exam objectives
- Books and online materials are packed with features to help candidates master more difficult testing methods on the actual exams
- Practice tests contain exam-realistic questions that closely mimic the difficulty of the actual exam
- Includes supplemental video training

Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, the CCNP Enterprise Core ENCOR 350-401 and Advanced Routing ENARSI 300-410 Official Cert Guide Library includes updated content, new online practice exercises, more than 400 practice exam questions, and more than 3 hours of Video Training.

Contributor Bio
Brad Edgeworth, CCIE No. 31574 (R&S and SP), is an SD-WAN technical solutions architect at Cisco Systems. Brad is a distinguished speaker at Cisco Live, where he has presented on various topics. Before joining Cisco, Brad worked as a network architect and consultant for various Fortune 500 companies.
CCNP and CCIE Collaboration Core CLCOR 350-801
Official Cert Guide (2nd Edition)
Jason Ball

Key Selling Points:
Straight from Cisco: official complete assessment, review, and practice for the revised version of the Implementing Cisco Collaboration Core Technologies (CLCOR 350-801) exam

- Authoritative coverage of every CLCOR 350-801 exam topic, with all the context and practical examples you need
- Completely updated for the 2023 revised version of the exam
- Includes realistic practice tests, plus extensive proven features to help you review more efficiently
- By a leading Cisco subject matter expert specializing in Cisco collaboration technologies
- For all candidates pursuing CCNP Collaboration certifications

Summary
Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam.

CCNP and CCIE Collaboration Core CLCOR 350-801 Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. It focuses specifically on the objectives for the new version of the CLCOR 350-801 exam. Jason Ball shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics.

This complete study package includes

- A test-preparation routine proven to help you pass the exams
- Do I Know This Already? quizzes, which enable you to decide how much time you need to decide how much time you need to spend on each section

Contributor Bio
Jason Ball, CCSI No. 33717, is a solutions readiness engineer for Cisco Americas Partner Organization (APO) through a company called ANI. In this position, he creates and hosts tech talks and labs for Cisco partners on current Cisco Collaboration products. He has been installing, consulting, and teaching technology for many years.
Cisco Certified Support Technician CCST Networking 100-150 Official Cert Guide
Russ White

Key Selling Points:
Direct from Cisco, the only official study guide for the new Cisco Certified Support Technician (CCST) Networking certification exam

- Helps entry-level students and professionals learn networking foundations, and core principles and techniques for network infrastructure, services, security, troubleshooting, management, and WANs
- Demonstrates the real-world significance of key ideas and techniques
- Provides a solid foundation for achieving deeper networking mastery and earning additional Cisco certifications
- Offers extensive study aids designed to prepare students to pass the exam on the first attempt

Summary
Trust the best-selling Official Cert Guide series from Cisco Press to help you learn, prepare, and practice for the CCST Networking 100-150 exam. Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, Cisco Certified Support Technician Networking 100-150 Official Cert Guide helps you master the concepts and techniques that ensure your exam success and is the only self-study resource approved by Cisco. Leading Cisco technology expert and best-selling author Russ White shares preparation hints and test-taking tips, helping you identify areas of weakness, and improve both your conceptual knowledge and hands-on skills.

This complete study package includes:

- A test-preparation routine proven to help you pass the exam
- Do I Know This Already? quizzes, which allow you to decide how much time you need to spend on each section
- Exam Topic lists that make referencing easy

Contributor Bio
Russ White (CCIE #2635, CCDE 2007::1, Louisville, TN) has more than thirty years of experience in designing, deploying, and troubleshooting large-scale networks. He has co-authored 40+ software patents; helped develop several Internet standards as well as Cisco’s CCDE and CCAr certifications; and worked in Internet governance with the Internet Society.
31 Days Before your Cisco Certified Support Technician (CCST) Networking 100-150 Exam
A Day-By-Day Review Guide for the CCST-Networking Certification Exam
Allan Johnson

Key Selling Points:
A Day-By-Day Review Guide for the new CCST-N Exam Certification Exam

- Visual calendar summarises each day's study topic to help students get through everything
- The checklist offers expert advice on preparation activities leading up to the exam
- Descriptions of exam organization and sign-up processes help to make sure nothing falls between the cracks
- Proven strategies help students to prepare mentally, organizationally, and physically

Summary
31 Days Before Your CCST-N Exam: A Day-By-Day Review Guide for the CCST-N Certification Exam is the friendliest, most practical guide to understand the Cisco Certified Support Technician - Networking (CCST-N) certification process. This book will help students prepare for the CCST-N exam using a variety of primary and supplemental study resources.

This portable guide offers a complete day-by-day plan for what and how to study. The book breaks down key exam topics into 31 daily review sessions using short summaries, lists, tables, examples, and graphics. A Study Resources section provides students with a quick reference for locating more in-depth treatment of a day's topics within Foundational and Supplemental resources. This book includes the basics of switch configuration and IP address through the modern cloud, virtualization, SDN, SDA, and network automation concepts.

How this book helps students to fit exam prep into their busy schedule:

Contributor Bio
Allan Johnson entered the academic world in 1999, after 10 years as a business owner/operator, in order to dedicate his efforts to his passion for teaching. He holds both an MBA and an MEd in occupational training and development. He taught a variety of technology courses to high school students and is an adjunct instructor at Del Mar College in Corpus Christi, Texas.
Cisco Certified Support Technician (CCST) Networking 100-150
Cisco Networking Academy

Key Selling Points:
The only authorized Lab Manual for the Cisco Networking Academy Networking Essentials course Curriculum Objectives.

- Completely revised for the new version of the course
- Excellent companion material for any student taking the Cisco Networking Academy Networking Essentials course

Summary
The only authorized Lab Manual for the Cisco Networking Academy Networking Essentials Course - fully updated for the revised course!

The Networking Essentials course is for entry-level developers, data scientists, cybersecurity specialists, and other professionals looking to broaden their networking domain knowledge. It’s also an excellent launching point for students pursuing a wide range of career pathways-from cybersecurity to software development and more. A Networking Academy digital badge is available for the instructor-led version of this course. No prerequisites required.

You’ll Learn These Core Skills:
- Plan and install a home or small business network using wireless technology, and then connect it to the Internet
- Develop critical thinking and problem-solving skills using Cisco Packet Tracers
- Practice verifying and troubleshooting network and Internet connectivity
- Recognize and mitigate security threats to a home network.

Contributor Bio
Cisco Networking Academy is an innovative Cisco education initiative that delivers information and communication technology skills to improve career and economic opportunities around the world. The Academy provides online courses, interactive tools, and lab activities to prepare individuals for information technology and networking careers in virtually every industry.
Cisco Certified Support Technician (CCST) Networking 100-150
Cisco Networking Academy

Key Selling Points:
Networking Essentials Companion Guide is the official supplemental textbook for the Networking Essentials course in the Cisco Networking Academy.

- Check Your Understanding: Evaluate your readiness with the end-of-chapter questions that match the style of questions you see in the online course quizzes.
- Interactive Activities: Reinforce your understanding of topics with dozens of exercises from the online course identified throughout the book with this icon.
- Videos: Watch the videos embedded within the online course.
- Hands-on Labs: Work through all the labs and other activities that are included in the course and published in the separate Labs and Study Guide.

Summary
Networking Essentials Companion Guide is the official supplemental textbook for the Networking Essentials course in the Cisco Networking Academy.

Networking is at the heart of the digital transformation. The network is essential to many business functions today, including business-critical data and operations, cybersecurity, and so much more. A wide variety of career paths rely on the network, so it's important to understand what the network can do, how it operates, and how to protect it.

This course is an excellent launching point for students pursuing a wide range of career pathways—from cybersecurity to software development to business and more. The Companion Guide is designed as a portable desk reference to use anytime, anywhere to reinforce the material from the course and organize your time.

The book’s features help you focus on important concepts to succeed in this course:

* **Chapter objectives:** Review core concepts by answering the focus questions listed at the beginning of each chapter.

Contributor Bio
Cisco Networking Academy is an innovative Cisco education initiative that delivers information and communication technology skills to improve career and economic opportunities around the world. The Academy provides online courses, interactive tools, and lab activities to prepare individuals for information technology and networking careers in virtually every industry.
IT Essentials Companion Guide v8
Cisco Networking Academy

Key Selling Points:
The only Cisco authorized textbook for the revised IT Essentials course (v8), from the Cisco Networking Academy

- Portable, desk references for take-home study and reference anytime, anywhere
- Aligns to the online course chapters
- Provides students with the only authorized, full-featured textbook for the Cisco Networking Academy IT Essentials course
- Book-based pedagogy that serves as additional reinforcement in helping the student learn the topics covered in the course

Summary
IT Essentials v8 Companion Guide supports the Cisco Networking Academy IT Essentials Version 8 course. The course is designed for Cisco Networking Academy students who want to pursue careers in IT and learn how computers work, how to assemble computers, and how to safely and securely troubleshoot hardware and software issues.

The features of the Companion Guide are designed to help you study and succeed in this course:

- **Chapter objectives**—Review core concepts by answering the focus questions listed at the beginning of each chapter.
- **Key terms**—Refer to the updated lists of networking vocabulary introduced and turn to the highlighted terms in context.
- **Course section numbering**—Follow along with the course heading numbers to easily jump online to complete labs, activities, and quizzes referred to within the text.
- **Check Your Understanding Questions and Answer Key**—Evaluate your readiness with the updated end-of-chapter questions that match the style of questions you see on the online course quizzes.

Contributor Bio
Cisco Networking Academy is an innovative Cisco education initiative that delivers information and communication technology skills to improve career and economic opportunities around the world. The Academy provides online courses, interactive tools, and lab activities to prepare individuals for information technology and networking careers in virtually every industry.
IT Essentials Labs and Study Guide Version 8
Cisco Networking Academy

Key Selling Points:
The only authorized Lab Manual for the Cisco Networking Academy IT Essentials v8 course

- Presents all labs associated with A+ objectives related to basic PC technology, operating systems, networking, security and troubleshooting
- Enables students to easily highlight, take notes, and study offline
- Links directly to Cisco Networking Academy's online curriculum

Summary
The only authorized Labs & Study Guide for the Cisco Networking Academy IT Essentials, Version 8 course

IT Essentials Lab Manual is a supplemental book prepared for students in the Cisco® Networking Academy IT Essentials v8 course. All the hands-on labs and worksheets from the course are printed within this book to provide practical, hands-on experience with the course content. IT Essentials covers fundamental computer and career skills for entry-level IT jobs. Practicing and performing all these tasks will reinforce the concepts, skills, and procedures and help prepare the student to take the CompTIA® A+ 220-1101 and 220-1102 exams.

Each chapter of this book is divided into a Study Guide section followed by a Lab section.

The Study Guide section offers exercises that help you learn the concepts, configurations, and troubleshooting skills crucial to your success as a CompTIA® A+ 220-1101 and 220-1102 exam candidate.

Contributor Bio
Cisco Networking Academy is an innovative Cisco education initiative that delivers information and communication technology skills to improve career and economic opportunities around the world. The Academy provides online courses, interactive tools, and lab activities to prepare individuals for information technology and networking careers in virtually every industry.
Cisco Security Fundamentals
Aamir Lakhani, Anthony K Giandomenico

Key Selling Points:
**Bridge the knowledge gap between CCNA and the CCNP Security (SCOR) certification you want to move your career forward**

- Gain a practical, Cisco-focused understanding of key insights and solutions you'll need as a security architect, consultant, security sales engineer, or other network security professional
- Develop a modern holistic understanding of the entire security fabric ecosystem: Cisco and beyond
- Wide-ranging, up-to-date coverage: cloud security, network defense, securing the edge, the MITRE ATT&CK® framework, authentication, critical infrastructure, threat hunting, and more

Summary
For decades, Cisco certification has been one of the best ways to demonstrate your expertise and grow your career in networking. If you're interested in the high-growth field of network security, your new Cisco certification path starts with CCNA, and then moves to the more advanced Cisco Certified Network Professional (CCNP) Security certification. But there's a sizable gap between standard CCNA knowledge and what you must know to pass your Implementing and Operating Cisco Security Core Technologies (350-701 SCOR) exam and earn your CCNP Security credential.

This guide bridges that gap, building on what you already know to fully prepare you for 350-701 SCOR and CCNP Security. Leading security strategist and implementer Aamir Lakhani covers the fundamentals of Cisco-based security technologies, as well as relevant security concepts well beyond Cisco products, imparting a holistic understanding of modern security fabrics and ecosystems.

Contributor Bio

Aamir Lakhani (Agyle, TX), a leading senior security strategist, creates technical security strategies and leads security implementation projects for Fortune® 500 enterprises and government organizations. He has worked in industries ranging from healthcare and education to finance, and has designed offensive counter-defense measures for the Department of Defense and national intelligence agencies.
Exam Ref MD-102 Microsoft Endpoint Administrator
Andrew Warren, Andrew Bettany

Key Selling Points:
Prepare for Exam MD-102 - and demonstrate real-world mastery of deploying, configuring, securing, managing, and monitoring devices and client apps in Microsoft 365 environments

- Authoritative and complete Exam MD-102 preparation content, straight from Microsoft
- Covers deploying Windows clients; managing identity, compliance and applications; and managing, maintaining, and protecting devices
- Organized by exam objectives for efficient study
- Strategic, what-if scenarios help you master the big-picture thinking the exam demands
- Contains up-to-date Microsoft 365 Certified: Endpoint Administrator Associate preparation tips from a leading expert
- For IT pros who administer endpoint devices of all kinds in any Microsoft 365 environment, regardless of size or type

Summary
Prepare for Microsoft Exam MD-102—and help demonstrate your real-world mastery of the skills and knowledge required to deploy, manage, and protect modern endpoints at scale in Microsoft 365 environments. Designed for endpoint administrators, this Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the Microsoft Certified Associate level. Focus on the expertise measured by these objectives:

- Deploy Windows client
- Manage identity and compliance
- Manage, maintain, and protect devices
- Manage applications

This Microsoft Exam Ref:

- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Assumes you have experience deploying, configuring, protecting, managing, and monitoring devices and client applications in a Microsoft 365 environment

About the Authors
Andrew Bettany is a Microsoft MVP and consults on Microsoft 365, Azure, and Windows client.

Contributor Bio
Andrew Bettany is a Microsoft MVP and consults on Microsoft 365, Azure, and Windows client. He has authored Windows exam prep guides, official Microsoft training, and video training for LinkedIn Learning and Pluralsight. He co-created the IT Masterclasses series of short, intensive technical courses. His most recent project involved delivering Microsoft Fundamentals skills training to over 250,000 Students.
Exam Ref MS-102 Microsoft 365 Administrator
Orin Thomas

Key Selling Points:
Prepare for Exam MS-102 - and demonstrate real-world mastery of Microsoft 365 administration for any environment

- Authoritative and complete Exam MS-102 preparation content, straight from Microsoft
- Covers deploying and managing Microsoft 365 tenants, implementing and managing identity and access in Azure AD; managing security and threats with Microsoft 365 Defender, and managing compliance with Microsoft Purview
- Organized by exam objectives for efficient study
- Strategic, what-if scenarios help you master the big-picture thinking the exam demands
- Contains up-to-date Microsoft 365 Certified: Administrator Expert preparation tips from a leading expert
- For IT pros who evaluate, plan for, migrate to, deploy, and/or manage Microsoft 365 in environments of any type or size

Summary
Prepare for the new Microsoft Exam MS-102 and help demonstrate your real-world mastery of the skills needed to help deploy and manage Microsoft 365 services in any environment.

Focus on the expertise measured by these objectives:

- Deploy and manage a Microsoft 365 tenant
- Implement and manage identity and access in Azure AD
- Manage security and threats by using Microsoft 365 Defender
- Manage compliance by using Microsoft Purview

This Microsoft Exam Ref:

- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Provides exam preparation tips written by a top trainer, consultant, and sysadmin
- Assumes you have experience with the Microsoft 365 Admin Center and an understanding of Exchange Online, Skype for Business, SharePoint Online, Microsoft 365 ProPlus, Microsoft 365 Defender, Microsoft Purview and Microsoft Azure Active Directory

The Exam Ref is the official study guide for Microsoft certification exams. Featuring concise, objective-by-objective reviews and strategic case scenarios and Thought experiments, exam candidates get professional-level preparation for the exam. The Exam Ref helps candidates maximize their performance on the exam and sharpen their job-role skills.

Contributor Bio

Orin Thomas (Endeavour Hills, Australia) is a Principal Cloud Operations Advocate at Microsoft. A recognized cloud and datacenter subject matter expert, he has written more than 40 books for Microsoft Press including the company’s leading book on the Windows Server operating system, Windows Server 2019 Inside Out.
Exam Ref DP-500 Designing and Implementing Enterprise-Scale Analytics Solutions Using Microsoft Azure and Microsoft Power BI
Daniil Maslyuk, Justin Frebault

Key Selling Points:
Prepare for Exam DP-500 - and demonstrate real-world mastery of designing, creating, and deploying enterprise-scale data analytics solutions

- Authoritative and complete Exam DP-500 preparation content, straight from Microsoft
- Covers implementing and managing data models and data analytics environments; and querying, transforming, exploring, and visualizing data
- Organized by exam objectives for efficient study
- Strategic, what-if scenarios help you master the big-picture thinking the exam demands
- Contains up-to-date Microsoft Certified: Azure Enterprise Data Analyst Associate preparation tips from a leading expert
- For IT pros who work with data analytics in Azure environments, and collaborate with others in building or managing Azure data analytics solutions

Summary
Prepare for Microsoft Exam DP-500 and demonstrate your real-world ability to design, create, and deploy enterprise-scale data analytics solutions. Designed for business intelligence developers, architects, data analysts, and other professionals, this Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the Microsoft Certified: Azure Enterprise Data Analyst Associate level.

Focus on the expertise measured by these objectives:

- Implement and manage a data analytics environment
- Query and transform data
- Implement and manage data models
- Explore and visualize data
This Microsoft Exam Ref:
- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Assumes you are a business intelligence developer, architect, data engineer, data architect, data analyst, or another professional with Power BI and Azure experience.

About the Exam
Exam DP-500 focuses on knowledge needed to govern and administer data analytics environments; integrate analytics platforms into existing IT infrastructure; manage the analytics development lifecycle; query data with Azure Synapse Analytics; ingest and transform data with Power BI; design and build tabular models; optimize enterprise-scale data models; explore data with Azure Synapse Analytics; and visualize data with Power BI.

Contributor Bio
DANIIL MASLYUK is an independent business intelligence consultant, trainer, and speaker who specializes in Microsoft Power BI. Daniil blogs at xxlbi.com and tweets as @DMaslyuk.

JUSTIN FRÉBAULT MCT, is an independent data solutions architect and trainer who specializes in Microsoft data products. He blogs at lafrew.com and is active on LinkedIn.
Exam Ref DP-900 Microsoft Azure Data Fundamentals
(2nd Edition)
Nicola Farquharson

Key Selling Points:
Prepare for Microsoft’s Exam DP-900 -- and demonstrate your foundational knowledge of the fundamentals of working with Microsoft Azure Data

- Fully updated for the recently revised version of the exam
- Authoritative and complete Exam DP-900 preparation content, straight from Microsoft
- Covers core data concepts, relational and non-relational data on Azure, and Azure analytics workloads
- Organized by exam objectives for efficient study
- Strategic, what-if scenarios help you master the big-picture thinking the exam demands
- Contains up-to-date Microsoft Certified Azure Data Fundamentals exam preparation tips from leading Microsoft experts

Summary
Prepare for the revised version of Microsoft Exam DP-900

Demonstrate your real-world foundational knowledge of core data concepts and how they are implemented using Microsoft Azure data services. Designed for business users, functional consultants, and other professionals, this Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the Microsoft Certified: Azure Data Fundamentals level.

Focus on the expertise measured by these objectives:
- Describe core data concepts
- Describe how to work with relational data on Azure
- Describe how to work with non-relational data on Azure
- Describe an analytics workload on Azure

This Microsoft Exam Ref:
- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Assumes you have foundational knowledge of core data concepts and their implementation with Microsoft Azure data services, and are beginning to work with data in the cloud

Contributor Bio

Nicola Farquharson has more than twenty years of experience in Networking Infrastructure and Microsoft Technologies including AI, MSSQL, Microsoft Power BI, Data Science, Dynamic 365, Machine Learning, Microsoft Azure & Azure DevOps. Her extensive knowledge and expertise in various technologies related to data management, cloud computing, and Azure data services will allow readers to gain a comprehensive understanding of the fundamental concepts required for Microsoft DP-900 Certification.
Exam Ref MS-900 (2nd Edition)
Microsoft 365 Fundamentals
Craig Zacker

Key Selling Points:
Prepare for Microsoft’s Exam MS-900 - fully updated for the recent revision of the exam

- Authoritative and complete Exam MS-900 preparation content, straight from Microsoft
- Covers cloud concepts; core Microsoft 365 services and concepts, and Microsoft 365 security, compliance, privacy, trust, pricing, and support
- Organized by exam objectives for efficient study
- Strategic, what-if scenarios help you master the big-picture thinking the exam demands

Summary
Prepare for the most recent release of the Microsoft Exam MS-900 and help demonstrate your mastery of real-world foundational knowledge about the considerations and benefits of adopting cloud services and the Software as a Service cloud model, as well as specific options and benefits of Microsoft 365 cloud service offerings. Designed for IT professionals, Exam Ref focuses on critical thinking and decision-making acumen needed for success at the Microsoft Certified Fundamentals level. Focus on the expertise measured by these objectives:

- Understand cloud concepts
- Understand core Microsoft 365 services and concepts
- Understand security, compliance, privacy, and trust in Microsoft 365
- Understand Microsoft 365 pricing and support

This Microsoft Exam Ref:

- Organizes its coverage by exam objectives
- Features strategic, what-if scenarios to challenge you
- Assumes you are a business user, IT professional, or student interested in cloud computing and technologies, including individuals planning to pursue mo...

Contributor Bio
Craig Zacker is the author or coauthor of dozens of books, manuals, articles, and websites on computer and networking topics. He has also been an English professor, a technical and copy editor, a network administrator, a webmaster, a corporate trainer, a technical support engineer, a minicomputer operator, a literature and philosophy student, a library clerk & a photographic darkroom technician.
Adobe Photoshop Lightroom Classic Classroom in a Book
Rafael Concepcion

Key Selling Points:
The fastest, easiest, most comprehensive way to learn the most recent version of Adobe Photoshop Lightroom

- Official training series from Adobe Systems Inc., developed with the support of Adobe product experts
- Comprehensive, project-based lessons teach key concepts for image editing and adjustment, management of large volumes of digital photographs, and creation of video slideshows with Photoshop Lightroom
- Written by award-winning author and instructor at Syracuse University

Summary
The fastest, easiest, most comprehensive way to learn Adobe Photoshop Lightroom Classic!

Classroom in a Book®, the best-selling series of hands-on software training workbooks, offers what no other book or training program does - an official training series from Adobe, developed with the support of Adobe product experts.

Adobe Photoshop Lightroom Classic Classroom in a Book contains lessons that cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. You can follow the book from start to finish or choose only those lessons that interest you. When you're looking for inspiration you can peruse the Artist Spotlights sections, which highlight industry leaders and their work.

Purchasing this book includes valuable online extras. Follow the instructions in the book's "Getting Started" section to unlock access to:

- **Downloadable lesson files** you need to work through the projects in the book
- **Web Edition** containing the complete text of the book, interactive quizzes & videos.

Contributor Bio
Rafael "RC" Concepcion (Syracuse) is an award-winning photographer, podcast host, educator, and the author of five best-selling books on Photography, Photoshop, Lightroom, and HDR. He is a Digital Post-Production Specialist and Adjunct Professor at the Newhouse School for Visual Communications at Syracuse University.
Adobe Animate Classroom in a Book
Russell Chun

Key Selling Points:
Classroom in a Book training for the latest version of Adobe Animate—the robust and flexible animation tool from Adobe!

- Bestselling Classroom in a Book series is the ideal way for readers to learn how to create high-quality animation and interactivity for the Web using project-based lessons.
- Aimed at beginning users and designed to teach Adobe Animate features, such as designing interactive animations and publishing them on multiple platforms for multiple devices.
- Official training series from Adobe, developed with the support of experts from Adobe product teams.

Summary
Develop creative animation and multimedia using Adobe Animate

Adobe Animate Classroom in a Book uses real-world, project-based learning to cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. For beginners and experienced users alike, you can follow the book from start to finish or choose only those lessons that interest you.

Learn to:

- Harness controls for animation including puppet warping, layer parenting, and paint brush preferences and symbol options
- Use the revamped Asset Warp tool for a modern rigging approach to animating shapes and bitmap images
- Work with a more robust set of playback options for graphic symbols that provide total control over looping
- Quickly publish to social media channels with support for SVG, WebGL, HTML5, animated GIFs, and HD video
- Seamlessly collaborate through Adobe Creative Cloud

Classroom in a Book, the best-selling series of hands-on software training workbooks, offers what no other book or training program does - an official training series from Adobe, developed with the support of Adobe product experts.

Contributor Bio
Russell Chun is an associate professor at the Lawrence Herbert School of Communication at Hofstra University, where he teaches multimedia storytelling, data journalism, and information design. His research examines effective visual communication and has been published in Visual Communication Quarterly, Proceedings of the New York State Communication Association, and Journal of Visual Literacy
Adobe Photoshop Classroom in a Book
Conrad Chavez

Key Selling Points:
The best-selling book on Adobe Photoshop, completely updated for the most recent release

- The official training workbook from Adobe
- Contains lessons that cover the basics and beyond, providing countless tips and techniques to help learners become more productive with the program
- The online companion files include all the necessary assets for readers to complete the projects featured in each chapter
- Includes full access to the Web Edition: a Web-based version of the complete eBook enhanced with video and multiple-choice quizzes

Summary
Learn to create and edit images using Adobe Photoshop

Adobe Photoshop Classroom in a Book uses real-world, project-based learning to cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. For beginners and experienced users alike, you can follow the book from start to finish or choose only those lessons that interest you. Learn to:

- Correct and improve digital images
- Seamlessly remove backgrounds, repair images, and replace skies
- Explore advanced filters that use machine learning and cloud processing
- Select subjects with complex outlines, including hair, quickly and precisely
- Composite multiple images and combine with typography
- Edit video, including transitions and motion effects
- Edit camera raw images
- Automate tasks
- Save as a Photoshop cloud document to easily edit across desktop and mobile devices
- Export your work for web, mobile devices, and print

Classroom in a Book®, the best-selling series of hands-on software training workbooks

Contributor Bio
Conrad Chavez writes about digital photography and Adobe Creative Cloud workflows. Conrad is the author or co-author of many books, including Adobe Photoshop Classroom in a Book (since the 2015 release) and the last three editions of Real World Adobe Photoshop for Photographers. He also writes articles for publications such as CreativePro.com and InDesign Magazine.
Adobe Illustrator Classroom in a Book
Brian Wood

Key Selling Points:
The best-selling guide to Adobe’s powerful illustration program

- The official training workbook from Adobe, fully updated for the most recent release
- Contains lessons that cover the basics and beyond, providing countless tips and techniques to help learners become more productive with the program
- The online companion files include all the necessary assets for readers to complete the projects featured in each chapter
- Includes full access to the Web Edition: a Web-based version of the complete eBook enhanced with video and multiple-choice quizzes

Summary
Build valuable graphic art skills and create digital artwork using Adobe Illustrator

Adobe Illustrator Classroom in a Book uses real-world, project-based learning to cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. For beginners and experienced users alike, you can follow the book from start to finish or choose only those lessons that interest you.

Learn to:

- Create artwork, from precise drawings to stylistic paintings
- Make logos, illustrations, posters, podcast covers, flyers, and more
- Explore selections, shapes, and color
- Progress to freeform gradients and layers
- Work with dynamic symbols, artistic brushes, and creative effects
- Efficiently export assets for the web, print, and more

Classroom in a Book®, the best-selling series of hands-on software training workbooks, offers what no other book or training program does—an official training series from Adobe, developed with the support of Adobe product experts.

Contributor Bio
Brian Wood is a speaker, developer and author of dozens of Adobe training books and articles. As an Adobe Certified trainer, Brian has been consulting with teachers, designers, marketing pros, business owners and front end developers—all over the country. He has spoken at several major design conferences, including Adobe MAX, the How Interactive Design Conference, the Web Design Conference etc.
Adobe InDesign Classroom in a Book
Kelly Kordes Anton, Tina DeJarld

Key Selling Points:
Best-selling, project-based Adobe InDesign guide, fully updated for the most recent release

- The official training workbook from Adobe
- Contains lessons that cover the basics and beyond, providing countless tips and techniques to help learners become more productive with the program
- The online companion files include all the necessary assets for readers to complete the projects featured in each chapter
- Includes full access to the Web Edition: a Web-based version of the complete eBook enhanced with video and multiple-choice quizzes

Summary
Learn page layout and graphic design using Adobe InDesign

Adobe InDesign Classroom in a Book uses real-world, project-based learning to cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. For beginners and experienced users alike, you can follow the book from start to finish or choose only those lessons that interest you. Learn to:

- Build a strong foundation of typographic, page layout, and document-construction skills
- Handle images from Adobe Photoshop and line drawings from Adobe Illustrator
- Create effects with layers and transparency
- Bring messages to life with beautiful typography and color
- Export work for professional printing, websites, social media, eBooks, and more

Classroom in a Book®, the best-selling series of hands-on software training workbooks, offers what no other book or training program does—an official training series from Adobe, developed with the support of Adobe product experts.

Contributor Bio
Kelly Kordes Anton has written and edited dozens of books and training resources on publishing technologies and InDesign, including nine previous editions of Adobe InDesign Classroom in a Book. She is a freelance writer based in Littleton, Colorado, and she also writes about ergonomics and lean manufacturing.

Tina DeJarld has worked on the front lines of taking designs from the computer screen to real-world production since before InDesign 1.0. She is highly accomplished in both prepress and graphic design production and passionate about building files that will work correctly.
Adobe After Effects Classroom in a Book
Lisa Fridsma, Brie Gyncild

Key Selling Points:
The best-selling guide to the powerful illustration program from Adobe

• Includes hands-on lessons that use clear, step-by-step instructions with screenshots to teach students key concepts for creating cinematic visual effects and sophisticated motion graphics using After Effects
• Online components include all lesson files plus video-enhanced Web Edition of the book
• Classroom in a Book is the official training series from Adobe Systems Inc., developed with the support of Adobe product experts

Summary
Learn video compositing, motion graphics design, and animation using Adobe After Effects

Adobe After Effects Classroom in a Book uses real-world, project-based learning to cover the basics and beyond, providing countless tips and techniques to help you become more productive with the program. For beginners and experienced users alike, you can follow the book from start to finish or choose only those lessons that interest you. Learn to:

• Create, manipulate, and optimize motion graphics for film, video, the web, and mobile devices
• Animate text and images, customize a wide range of effects, track and sync content, rotoscope, manipulate timing, correct color, and remove unwanted objects
• Customize cameras and lighting to create compelling 3D content
• Design Motion Graphics templates for editing in Adobe Premiere Pro
• Deform and animate objects and video using robust Puppet tools

Classroom in a Book®, the best-selling series of hands-on software training workbooks, offers what no other book or trainin...
Shawna Lockhart, Marla Goodman, Cindy M. Johnson

Key Selling Points:

Today's clear, comprehensive, full-color introduction and reference for everyone creating engineering drawings and graphics with CAD or by hand

- Introductory coverage that's especially well-designed for students learning drafting as part of study for a wide range of careers
- Includes convenient tear-out worksheets and practical, hands-on exercises
- A long-awaited update to one of the field's top-selling and most widely-praised guides
- Proven pedagogical features include key words, chapter summaries, review questions, chapter exercises, and reverse engineering exercises
- Derived from Chapters 1-14 of Technical Drawing, 16th Edition (2023), adding hands-on exercises and worksheets not included there

Summary

Modern Graphics Communication, 6/e, is a clear, comprehensive, full-color introduction and reference for students and professionals who are creating engineering drawings and graphics with CAD software or by hand. It provides excellent technical detail and motivating real-world examples, illuminating theory with a colorful, highly-visual format complemented with concise text.

Designed for busy, visually-oriented learners, this guide expands on well-tested material, fully updated for the latest ASME standards, materials, industries and production processes. Its up-to-date examples range from mechanical, plastic, and sheet metal drawings to modern techniques for civil engineering, architecture, and rapid prototyping. Throughout, clear, easy, step-by-step descriptions teach essential sketching and visualization techniques, including the use of 3D and 2D CAD. All color visuals are tightly integrated with text to promote rapid mastery.

Contributor Bio

Shawna Lockhart combines her university teaching experience at Montana State University and Embry Riddle Aeronautical University with wide ranging industrial experience to write engineering design communication and CAD software texts. An early adopter of 2D and 3D CAD technology, she is the author of multiple AutoCAD texts, from AutoCAD Release 10 in 1992 to the current 2018 release.
Discovering AutoCAD 2024
Mark Dix, Paul Riley, Lee Ambrosius

Key Selling Points:
Created for an introductory course in AutoCAD and updated for the latest software release, this title presents a hands-on, activity-based approach to the use of AutoCAD as a drafting tool-complete with techniques, tips, shortcuts, and insights that improve efficiency.

- Lessons are broken down into tasks listed at the beginning of each section, introducing students to the AutoCAD commands using a structured, intuitive approach and helping students anticipate what information will be needed at each new phase of the learning process.
- Detailed graphics appear throughout the text, demonstrating what students should expect to see on their screens and encouraging self-paced study.
- Drawing problems appear at the end of the chapter, helping students apply newly learned techniques immediately to realistic drawing situations. This includes drawing suggestions, timesaving tips, and explanations of how to use techniques in actual situations.

Summary
Designed for introductory AutoCAD users, Discovering AutoCAD 2024 presents a hands-on, activity-based approach to the use of AutoCAD as a drafting tool-complete with techniques, tips, shortcuts, and insights that improve efficiency. Topics and tasks are carefully grouped to lead students logically through the AutoCAD command set, with the level of difficulty increasing steadily as skills are acquired through experience and practice. Straightforward explanations focus on what is relevant to actual drawing procedures, and illustrations show exactly what to expect on the computer screen. This edition features updates for the latest release of AutoCAD 2024, projects, and test questions for each chapter.

- Lessons are broken down into tasks listed at the beginning of each section, introducing students to the AutoCAD commands using a structured, intuitive approach and helping students anticipate what information will be needed at each new phase of the learning process.

Contributor Bio
MARK DIX first worked with AutoCAD as a programmer in 1985. The following year he began collaborating with Paul Riley to create AutoCAD training material, combining Paul's background in industrial design with his own background in writing and curriculum development. Mark received the M.A.T. from Cornell University and the M.S. degree from the University of Massachusetts.
Introduction to AutoCAD 2024
A Modern Perspective
Paul F. Richard

Key Selling Points:
Chock full of hands-on exercises, this book addresses advances in technology and introduces students to AutoCAD 2024

- Introduces AutoCAD, drafting skills, editing techniques, working with complex objects, annotating drawings, outputting your work, and advanced drawing and construction methods
- Pedagogy reinforces learning objectives throughout—chapter objectives; key term definitions; command grids concisely offer multiple ways of achieving task at hand; "New" in this version icons highlight new software features quickly; Discipline icons identify the field of study throughout
- Hands-on exercises appear throughout the text to reinforce learning and end-of-chapter projects require students to demonstrate a full understanding of the concepts presented in the chapter

Summary
Introduction to AutoCAD 2024 addresses advances in technology and introduces students to 2-dimensional drawing skills and commands using the 2024 release of AutoCAD. Straightforward explanations focus on actual drawing procedures, and illustrations show what to expect on the computer screen. It continuously builds on concepts covered in previous chapters, contains exercises combined with in-text notes, and offers examples that provide the “how and why” of AutoCAD fundamentals.

Projects are included at the end of each chapter and provide hands-on experience creating various types of mechanical, architectural, civil, and electrical drawings. This text is appropriate for introductory and intermediate AutoCAD courses.

- Introduces AutoCAD, drafting skills, editing techniques, working with complex objects, annotating drawings, outputting your work, advanced drawing and construction methods, and collaborating with others on the web

Contributor Bio

Paul Richard has worked in the CAD/BIM field for more than 35 years, first starting as a CAD drafter/designer in 1985. Since then, he has worked in the AEC industry as a CAD manager, CAD instructor, author, and software developer. In his spare time, Paul likes riding and working on motorcycles.