

## Sample Chapter 6 Manning Publications Co Bgplus

More than fifty years after his death, Albert Einstein's vital engagement with the world continues to inspire others, spurring conversations, projects, and research, in the sciences as well as the humanities. Einstein for the 21st Century shows us why he remains a figure of fascination. In this wide-ranging collection, eminent artists, historians, scientists, and social scientists describe Einstein's influence on their work, and consider his relevance for the future. Scientists discuss how Einstein's vision continues to motivate them, whether in their quest for a fundamental description of nature or in their investigations in chaos theory; art scholars and artists explore his ties to modern aesthetics; a music historian probes Einstein's musical tastes and relates them to his outlook in science; historians explore the interconnections between Einstein's politics, physics, and philosophy; and other contributors examine his impact on the innovations of our time. Uniquely cross-disciplinary, Einstein for the 21st Century serves as a testament to his legacy and speaks to everyone with an interest in his work. The contributors are Leon Botstein, Lorraine Daston, E. L. Doctorow, Yehuda Elkana, Yaron Ezrahi, Michael L. Friedman, Jürg Fröhlich, Peter L. Galison, David Gross, Hanoch Gutfreund, Linda D. Henderson, Dudley Herschbach, Gerald Holton, Caroline Jones, Susan Neiman, Lisa Randall, Jürgen Renn, Matthew Ritchie, Silvan S. Schweber, and A. Douglas Stone.

Specification by Example and Gherkin offer programmers, designers, and managers an inclusive environment for clear communication, discovering requirements, and building a documentation system. Writing Great Specifications is an example-rich tutorial that teaches readers how to write good Gherkin specification documents that take advantage of Specification by Example's benefits. Engineers and testers will find it helpful in striking a stronger chord with non-technical audiences through automated specifications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Summary Real-World Machine Learning is a practical guide designed to teach working developers the art of ML project execution. Without overdosing you on academic theory and complex mathematics, it introduces the day-to-day practice of machine learning, preparing you to successfully build and deploy powerful ML systems. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning systems help you find valuable insights and patterns in data, which you'd never recognize with traditional methods. In the real world, ML techniques give you a way to identify trends, forecast behavior, and make fact-based recommendations. It's a hot and growing field, and up-to-speed ML developers are in demand. About the Book Real-World Machine Learning will teach you the concepts and techniques you need to be a successful machine learning practitioner without overdosing you on abstract theory and complex mathematics. By working through immediately relevant examples in Python, you'll build skills in data acquisition and modeling, classification, and regression. You'll also explore the most important tasks like model validation, optimization, scalability, and real-time streaming. When you're done, you'll be ready to successfully build, deploy, and maintain your own powerful ML systems. What's Inside Predicting future behavior Performance evaluation and optimization Analyzing sentiment and making recommendations About the Reader No prior machine learning experience assumed. Readers should know Python. About the Authors Henrik Brink, Joseph Richards and Mark Fetherolf are experienced data scientists engaged in the daily practice of machine learning. Table of Contents PART 1: THE MACHINE-LEARNING WORKFLOW What is machine learning? Real-world data Modeling and prediction Model evaluation and optimization Basic feature engineering PART 2: PRACTICAL APPLICATION Example: NYC taxi data Advanced feature engineering Advanced NLP example: movie review sentiment Scaling machine-learning workflows Example: digital display advertising

Summary Spring Roo in Action is a unique book that teaches you how to code Java in Roo, with a particular focus on Spring-based applications. Through hands-on examples, you'll learn how Roo creates well-formed application structures and supports best practices and tools. Plus, you'll get a quick-and-dirty guide to setting up Roo effectively in your environment. About the Technology Roo is a lightweight Java console shell that simplifies compile-time tasks. It improves productivity by enforcing correct coding practices and patterns and integrates with mainstream Java technologies, including ActiveMQ, GWT, JPA, and OSGi. And, when you finish coding, it gets out of the way so there's no runtime impact. About the Book Spring Roo in Action teaches you to code Java more efficiently using Roo. With the help of many examples, it shows you how to build application components from the database layer to the user interface. The book takes a test-first approach and points out how Roo can help automate many of the mundane details of coding Java apps. Along the way, you'll address important topics like security, messaging, and cloud computing. This book is for Java developers who want to get more productive by using Roo. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Learn Roo from the ground up Integrate with existing projects Create custom add-ons Use Roo with Spring ===== Table of Contents PART 1 STARTING SPRING APPS RAPIDLY WITH ROO What is Spring Roo? Getting started with Roo PART 2 DATABASES AND ENTITIES Database persistence with entities Relationships, JPA, and advanced persistence PART 3 WEB DEVELOPMENT Rapid web applications with Roo Advanced web applications RIA and other web frameworks Configuring security PART 4 INTEGRATION Testing your application Enterprise services-email and messaging Roo add-ons Advanced add-ons and deployment PART 5 ROO IN THE CLOUD Cloud computing Workflow applications using Spring Integration

A Comprehensive, Illustrated Filmography

The Martian Chess of Edgar Rice Burroughs

Getting Started with Hibernate 3

Java 3D, JOGL, JInput and JOAL APIs

Einstein for the 21st Century

A project-based guide

If you need to learn Spring, look no further than this widely beloved and comprehensive guide! Fully revised for Spring 5.3, and packed with interesting real-world examples to get your hands dirty with Spring. In Spring in Action, 6th Edition you will learn: Building reactive applications Relational and NoSQL databases Integrating via HTTP and REST-based services, and sand reactive RSocket services Reactive programming techniques Deploying applications to traditional servers and containers Securing applications with Spring Security Over the years, Spring in Action has helped tens of thousands of developers get a major productivity boost from Spring. This new edition of the classic bestseller covers all of the new features of Spring 5.3 and Spring Boot 2.4 along with examples of reactive programming, Spring Security for REST Services, and bringing reactivity to your databases. You'll also find the latest Spring best practices, including Spring Boot for application setup and configuration. About the technology Spring is required knowledge for Java developers! Why? Th is powerful framework eliminates a lot of the tedious configuration and repetitive coding tasks, making it easy to build enterprise-ready, production-quality software. The latest updates bring huge productivity boosts to microservices, reactive development, and other modern application designs. It's no wonder over half of all Java developers use Spring. About the book Spring in Action, Sixth Edition is a comprehensive guide to Spring's core features, all explained in Craig Walls' famously clear style. You'll put Spring into action as you build a complete database-backed web app step-by-step. This new edition covers both Spring fundamentals and new features such as reactive flows, Kubernetes integration, and RSocket. Whether you're new to Spring or leveling up to Spring 5.3, make this classic bestseller your bible! What's inside Relational and NoSQL databases Integrating via RSocket and REST-based services Reactive programming techniques Deploying applications to traditional servers and containers About the reader For beginning to intermediate Java developers. About the author Craig Walls is an engineer at VMware, a member of the Spring engineering team, a popular author, and a frequent conference speaker. Table of Contents PART 1 FOUNDATIONAL SPRING 1 Getting started with Spring 2 Developing web applications 3 Working with data 4 Working with nonrelational data 5 Securing Spring 6 Working with configuration properties PART 2 INTEGRATED SPRING 7 Creating REST services 8 Securing REST 9 Sending messages asynchronously 10 Integrating Spring PART 3 REACTIVE SPRING 11 Introducing Reactor 12 Developing reactive APIs 13 Persisting data reactively 14 Working with RSocket PART 4 DEPLOYED SPRING 15 Working with Spring Boot Actuator 16 Administering Spring 17 Monitoring Spring with JMX 18 Deploying Spring "Essays on contemporary political cartooning in Australia."--Provided by publisher.

Grokking Deep Reinforcement Learning uses engaging exercises to teach you how to build deep learning systems. This book combines annotated Python code with intuitive explanations to explore DRL techniques. You'll see how algorithms function and learn to develop your own DRL agents using evaluative feedback. Summary We all learn through trial and error. We avoid the things that cause us to experience pain and failure. We embrace and build on the things that give us reward and success. This common pattern is the foundation of deep reinforcement learning: building machine learning systems that explore and learn based on the responses of the environment. Grokking Deep Reinforcement Learning introduces this powerful machine learning approach, using examples, illustrations, exercises, and crystal-clear teaching. You'll love the perfectly paced teaching and the clever, engaging writing style as you dig into this awesome exploration of reinforcement learning fundamentals, effective deep learning techniques, and practical applications in this emerging field. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology We learn by interacting with our environment, and the rewards or punishments we experience guide our future behavior. Deep reinforcement learning brings that same natural process to artificial intelligence, analyzing results to uncover the most efficient ways forward. DRL agents can improve marketing campaigns, predict stock performance, and beat grand masters in Go and chess. About the book Grokking Deep Reinforcement Learning uses engaging exercises to teach you how to build deep learning systems. This book combines annotated Python code with intuitive explanations to explore DRL techniques. You'll see how algorithms function and learn to develop your own DRL agents using evaluative feedback. What's inside An introduction to reinforcement learning DRL agents with human-like behaviors Applying DRL to complex situations About the reader For developers with basic deep learning experience. About the author Miguel Morales works on reinforcement learning at Lockheed Martin and is an instructor for the Georgia Institute of Technology's Reinforcement Learning and Decision Making course. Table of Contents 1 Introduction to deep reinforcement learning 2 Mathematical foundations of reinforcement learning 3 Balancing immediate and long-term goals 4 Balancing the gathering and use of information 5 Evaluating agents' behaviors 6 Improving agents' behaviors 7 Achieving goals more effectively and efficiently 8 Introduction to value-based deep reinforcement learning 9 More stable value-based methods 10 Sample-efficient value-based methods 11 Policy-gradient and actor-critic methods 12 Advanced actor-critic methods 13 Toward artificial general intelligence

This book addresses the development of safety-critical software and to this end proposes the SafeScrum® methodology. SafeScrum® was inspired by the agile method Scrum, which is extensively used in many areas of the software industry. Scrum is, however, not intended or designed for use with safety-critical systems; hence the authors propose guidelines and additions to make it both practically useful and compliant with the additional requirements found in safety standards. The book provides an overview of agile software development and how it can be linked to safety and relevant safety standards. SafeScrum® is described in detail as a useful approach for reaping the benefits of agile methods, and is intended as a set of ideas and a basis for adaptation in industry projects. The book covers roles, processes and practices, and documentation. It also includes tips on how standard software process tools can be employed. Lastly, some insights into relevant research in this new and emerging field are provided, and selected real-world examples are presented. The ideas and descriptions in this book are based on collaboration with the industry, in the form of discussions with assessment organizations, general discussions within the research fields of safety and software, and last but not least, the authors' own experiences and ideas. It was mainly written for practitioners in industry who know a great deal about how to produce safety-critical software but less about agile development in general and Scrum in particular.

Learning Domain-Driven Design

CoreOS in Action

New York Bight Project, Water Column Sampling Cruises No. 6-8 of the NOAA Ship FERREL, April-June 1974

Test-Driven Development

Introducing Data Science

Mathematics Explained for Primary Teachers

Summary Elm is more than just a cutting-edge programming language, it 's a chance to upgrade the way you think about building web applications. Once you get comfortable with Elm 's refreshingly different approach to application development, you ' ll be working with a clean syntax, dependable libraries, and a delightful compiler that essentially eliminates runtime exceptions. Elm compiles to JavaScript, so your code runs in any browser, and Elm 's best-in-class rendering speed will knock your socks off. Let ' s get started! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Simply put, the Elm programming language transforms the way you think about frontend web development. Elm 's legendary compiler is an incredible assistant, giving you the precise and user-friendly support you need to work efficiently. Elm applications have small bundle sizes that run faster than JavaScript frameworks and are famously easy to maintain as they grow. The catch? Elm isn ' t JavaScript, so you ' ll have some new skills to learn. About the book Elm in Action teaches you the Elm language along with a new approach to coding frontend applications. Chapter by chapter, you ' ll create a full-featured photo-browsing app, learning as you go about Elm 's modular architecture, Elm testing, and how to work seamlessly with your favorite JavaScript libraries. You ' ll especially appreciate author and Elm core team member Richard Feldman 's unique insights, based on his thousands of hours writing production code in Elm. When you 're done, you ' ll have a toolbox of new development skills and a stunning web app for your portfolio. What's inside Scalable design for production web applications Single-page applications in Elm Data modeling in Elm Accessing JavaScript from Elm About the reader For web developers with no prior experience in Elm or functional programming. About the author Richard Feldman is a software engineer at NoRedInk and a well-known member of the Elm community. Table of Contents PART 1 - GETTING STARTED 1. Welcome to Elm 2. Your first Elm application 3. Compiler as assistant PART 2 - PRODUCTION-GRADE ELM 4. Talking to servers 5. Talking to JavaScript 6. Testing PART 3 - BUILDING BIGGER 7. Data modeling 8. Single-page applications

The Programmer's Brain unlocks the way we think about code. It offers scientifically sound techniques that can radically improve the way you master new technology, comprehend code, and memorize syntax. You'll learn how to benefit from productive struggle and turn confusion into a learning tool. Along the way, you'll discover how to create study resources as you become an expert at teaching yourself and bringing new colleagues up to speed.

The design of a highway drainage channel to carry a given discharge is accomplished in two parts. The first part of the design involves the computation of a channel section which will carry the design discharge on the available slope. This chapter briefly discusses the principles of flow in open channels and the use of the Manning equation for computing the channel capacity. The second part of the design is the determination of the degree of protection required to prevent erosion in the drainage channel. This can be done by computing the velocity in the channel at the design discharge, using the Manning equation, and comparing the calculated velocity with that permissible for the type of channel lining used. A change in the type of channel lining will require a change in channel size unless both linings have the same roughness coefficient.

Summary Ember.js in Action is a crisp tutorial that introduces the Ember.js framework and shows you how to build production-quality web applications. You'll begin with the basic architecture: client- and server-side MVC, integrating Ember.js with your favorite back end, handling data ... and more. You'll explore the amazing Handlebars templating engine that automatically updates your apps when the data behind them changes.

Along the way, you'll develop a complete Ember.js application and learn how to deploy, administer, and update it efficiently. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Ember.js is a JavaScript MVC framework that handles important tasks like managing code modules, maintaining state, and expediting reliable data flow. It provides the patterns, components, and scaffolding you need to build ambitious web applications. About the Book Ember.js in Action introduces the Ember.js framework and shows you how to build full-featured, desktop-quality web applications. You'll begin with the basic architecture: client- and server-side MVC and how to integrate Ember.js with your favorite back end. Then you'll explore the amazing Handlebars templating engine that automatically updates your apps when the data behind them changes. Along the way, you'll develop a complete Ember.js application and learn how to deploy, administer, and update it efficiently. Readers of this book need to know JavaScript. No prior experience with Ember.js is required. What's Inside Working with Ember Data Mastering Handlebars templates Advanced JavaScript techniques Covers Ember.js 1.0 About the Author Joachim Haagen Skeie is an experienced web application developer and the author of Montric, an open source monitoring tool built using Ember.js. Table of Contents PART 1 EMBER.JS FUNDAMENTALS Powering your next ambitious web application The Ember.js way Putting everything together using Ember.js Router Automatically updating templates with Handlebars.js PART 2 BUILDING AMBITIOUS WEB APPS FOR THE REAL WORLD Bringing home the bacon--interfacing with the server side using Ember Data Interfacing with the server side without using Ember Data Writing custom components Testing your Ember.js application PART 3 ADVANCED EMBER.JS TOPICS Authentication through a third-party system--Mozilla Persona The Ember.js run loop--Backburner.js Packaging and deployment

SafeScrum® - Agile Development of Safety-Critical Software

A J2EE Example

The Programmer's Brain

Spring in Action, Sixth Edition

His Legacy in Science, Art, and Modern Culture

What Every Programmer Needs to Know about Cognition

Get access to an interactive eBook\* when you buy the paperback! (Print paperback version only, ISBN 9781446285879) A Unique Blend of Digital and Print Learning Resources! 5 Star student reviews: "A must have for teachers-to-be, especially those who are a bit shaky on their maths knowledge!" "Not many maths books keep me fixated but this is one that is definitely worth the money." "It is a book I will be using even when in the classroom." Mathematics Explained for Primary Teachers develops your understanding of mathematical concepts and processes, and how children learn them, so you can confidently teach mathematics to primary children. Tried and tested, the fifth edition of Derek Haylock's much loved textbook matches the 2014 curriculum requirements for England. Every chapter integrates children's learning, classroom practice, and teacher's own requirements for subject knowledge, making this the ideal text to guide you through your studies and beyond. More than just a book! The new edition is supported by FREE access to an interactive eBook and a companion website allowing you to use a wealth of teaching and learning resources. You can use the eBook to study where and when you want, and read, annotate and search the book on a tablet, laptop or PC. You can also visit study.sagepub.com/haylock5e to access: Videos by the author introduce core themes of each section and explain key mathematical processes. Links to the National Curriculum specify the statutory requirements for primary schools in England that relate to the mathematical content of each chapter. Learning and Teaching points highlight important issues you may face in the classroom and provide practical guidance for teaching. Self-assessment questions help check your understanding and provide immediate feedback to see how well you have done. Select SAGE journal articles to support literature reviews and wider reading. Lesson Plan Activities by Ralph Manning support content-focused chapters and contain creative mathematics tasks across the primary age range. A Student Workbook is also available to accompany this book, including over 700 practice problems to help you understand, apply and teach primary mathematics. Derek Haylock is an education consultant and writer with a background in mathematics teaching, teacher education and classroom-based research in mathematics education. Ralph Manning is an independent consultant in primary education. He has worked as a primary teacher and as a lecturer in primary teacher education for 18 years, following a career in IT. \*interactivity only available through Vitalsource eBook

Parallel and High Performance Computing offers techniques guaranteed to boost your code's effectiveness. Summary Complex calculations, like training deep learning models or running large-scale simulations, can take an extremely long time. Efficient parallel programming can save hours—or even days—of computing time. Parallel and High Performance Computing shows you how to deliver faster run-times, greater scalability, and increased energy efficiency to your programs by mastering parallel techniques for multicore processor and GPU hardware. About the technology Write fast, powerful, energy efficient programs that scale to tackle huge volumes of data. Using parallel programming, your code spreads data processing tasks across multiple CPUs for radically better performance.

With a little help, you can create software that maximizes both speed and efficiency. About the book Parallel and High Performance Computing offers techniques guaranteed to boost your code's effectiveness. You'll learn to evaluate hardware architectures and work with industry standard tools such as OpenMP and MPI. You'll master the data structures and algorithms best suited for high performance computing and learn techniques that save energy on handheld devices. You'll even run a massive tsunami simulation across a bank of GPUs. What's inside Planning a new parallel project Understanding differences in CPU and GPU architecture Addressing underperforming kernels and loops Managing applications with batch scheduling About the reader For experienced programmers proficient with a high-performance computing language like C, C++, or Fortran. About the author Robert Robey works at Los Alamos National Laboratory and has been active in the field of parallel computing for over 30 years. Yuliana Zamora is currently a PhD student and Siebel Scholar at the University of Chicago, and has lectured on programming modern hardware at numerous national conferences. Table of Contents PART 1 INTRODUCTION TO PARALLEL COMPUTING 1 Why parallel computing? 2 Planning for parallelization 3 Performance limits and profiling 4 Data design and performance models 5 Parallel algorithms and patterns PART 2 CPU: THE PARALLEL WORKHORSE 6 Vectorization: FLOPs for free 7 OpenMP that performs 8 MPI: The parallel backbone PART 3 GPUS: BUILT TO ACCELERATE 9 GPU architectures and concepts 10 GPU programming model 11 Directive-based GPU programming 12 GPU languages: Getting down to basics 13 GPU profiling and tools PART 4 HIGH PERFORMANCE COMPUTING ECOSYSTEMS 14 Affinity: Truce with the kernel 15 Batch schedulers: Bringing order to chaos 16 File operations for a parallel world 17 Tools and resources for better code

Summary The best way to learn microservices development is to build something! Bootstrapping Microservices with Docker, Kubernetes, and Terraform guides you from zero through to a complete microservices project, including fast prototyping, development, and deployment. You'll get your feet wet using industry-standard tools as you learn and practice the practical skills you'll use for every



microservices application. Following a true bootstrapping approach, you'll begin with a simple, familiar application and build up your knowledge and skills as you create and deploy a real microservices project. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Taking microservices from proof of concept to production is a complex, multi-step operation relying on tools like Docker, Terraform, and Kubernetes for packaging and deployment. The best way to learn the process is to build a project from the ground up, and that's exactly what you'll do with this book! About the book In Bootstrapping Microservices with Docker, Kubernetes, and Terraform, author Ashley Davis lays out a comprehensive approach to building microservices. You'll start with a simple design and work layer-by-layer until you've created your own video streaming application. As you go, you'll learn to configure cloud infrastructure with Terraform, package microservices using Docker, and deploy your finished project to a Kubernetes cluster. What's inside Developing and testing microservices applications Working with cloud providers Applying automated testing Implementing infrastructure as code and setting up a continuous delivery pipeline Monitoring, managing, and troubleshooting About the reader Examples are in JavaScript. No experience with microservices, Kubernetes, Terraform, or Docker required. About the author Ashley Davis is a software developer, entrepreneur, stock trader, and the author of Manning's Data Wrangling with JavaScript. Table of Contents 1 Why microservices? 2 Creating your first microservice 3 Publishing your first microservice 4 Data management for microservices 5 Communication between microservices 6 Creating your production environment 7 Getting to continuous delivery 8 Automated testing for microservices 9 Exploring FliXTube 10 Healthy microservices 11 Pathways to scalability

This book looks at the two most popular ways of using Java SE 6 to write 3D games on PCs: Java 3D (a high-level scene graph API) and JOGL (a Java layer over OpenGL). Written by Java gaming expert, Andrew Davison, this book uses the new Java (SE) 6 platform and its features including splash screens, scripting, and the desktop tray interface. This book is also unique in that it covers Java game development using the Java 3D API and Java for OpenGL--both critical components and libraries for Java-based 3D game application development

African American Films Through 1959

Pro Java 6 3D Game Development

Deep Learning for Vision Systems

Sails.js in Action

Deep Learning with Python

The Quick Python Book

Summary Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning has made remarkable progress in recent years. We went from near-unusable speech and image recognition, to near-human accuracy. We went from machines that couldn't beat a serious Go player, to defeating a world champion. Behind this progress is deep learning—a combination of engineering advances, best practices, and theory that enables a wealth of previously impossible smart applications. About the Book Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. You'll explore challenging concepts and practice with applications in computer vision, natural-language processing, and generative models. By the time you finish, you'll have the knowledge and hands-on skills to apply deep learning in your own projects. What's Inside Deep learning from first principles Setting up your own deep-learning environment Image-classification models Deep learning for text and sequences Neural style transfer, text generation, and image generation About the Reader Readers need intermediate Python skills. No previous experience with Keras, TensorFlow, or machine learning is required. About the Author François Chollet works on deep learning at Google in Mountain View, CA. He is the creator of the Keras deep-learning library, as well as a contributor to the TensorFlow machine-learning framework. He also does deep-learning research, with a focus on computer vision and the application of machine learning to formal reasoning. His papers have been published at major conferences in the field, including the Conference on Computer Vision and Pattern Recognition (CVPR), the Conference and Workshop on Neural Information Processing Systems (NIPS), the International Conference on Learning Representations (ICLR), and others. Table of Contents PART 1 - FUNDAMENTALS OF DEEP LEARNING What is deep learning? Before we begin: the mathematical building blocks of neural networks Getting started with neural networks Fundamentals of machine learning PART 2 - DEEP LEARNING IN PRACTICE Deep learning for computer vision Deep learning for text and sequences Advanced deep-learning best practices Generative deep learning Conclusions appendix A - Installing Keras and its dependencies on Ubuntu appendix B - Running Jupyter notebooks on an EC2 GPU instance

Throughout its hundred-year history, the game Jetan has influenced many writers and game designers. Invented by author Edgar Rice Burroughs for his 1922 novel The Chessmen of Mars, Jetan has been played by enthusiastic fans and serious gamers alike. This first-ever book on Jetan explores the game's rules in depth and provides new interpretations based on up-to-date research. It chronicles the game's history, explores tactics and variants and provides a complete standard for notating games. Also included are three annotated Jetan playthroughs and several practice exercises. Over 80 diagrams and photographs are used as illustrations, and an essay about Edgar Rice Burroughs' lifelong interest in sports and games further contextualizes the game.

Knative in Action teaches you to build complex and efficient serverless applications. Summary Take the pain out of managing serverless applications. Knative, a collection of Kubernetes extensions curated by Google, simplifies building and running serverless systems. Knative in Action guides you through the Knative toolkit, showing you how to launch, modify, and monitor event-based apps built using cloud-hosted functions like AWS Lambda. You'll learn how to use Knative Serving to develop software that is easily deployed and autoscaled, how to use Knative Eventing to wire together disparate systems into a consistent whole, and how to integrate Knative into your shipping pipeline. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology With Knative, managing a serverless application's full lifecycle is a snap. Knative builds on Kubernetes orchestration features, making it easy to deploy and run serverless apps. It handles low-level chores—such as starting and stopping instances—so you can concentrate on features and behavior. About the book Knative in Action teaches you to build complex and efficient serverless applications. You'll dive into Knative's unique design principles and grasp cloud native concepts like handling latency-sensitive workloads. You'll deliver updates with Knative Serving and interlink apps, services, and systems with Knative Eventing. To keep you moving forward, every example includes deployment advice and tips for debugging. What's inside Deploy a service with Knative Serving Connect systems with Knative Eventing Autoscale responses for different traffic surges Develop, ship, and operate software About the reader For software developers comfortable with CLI tools and an OO language like Java or Go. About the author Jacques Chester has worked in Pivotal and VMware R&D since 2014, contributing to Knative and other projects. Table of Contents 1 Introduction 2 Introducing Knative Serving 3 Configurations and Revisions 4 Routes 5 Autoscaling 6 Introduction to Eventing 7 Sources and Sinks 8 Filtering and Flowing 9 From Conception to Production

Introduces the programming language's syntax, control flow, and basic data structures and covers its interaction with applications and mangement of large collections of code.

Spring Boot in Action

Testing Microservices with Mountebank

Practical Machine Learning for Data Analysis Using Python

Parallel and High Performance Computing

Go in Action

Comic Commentators

*Summary Go in Action introduces the Go language, guiding you from inquisitive developer to Go guru. The book begins by introducing the unique features and concepts of Go. Then, you'll get hands-on experience writing real-world applications including websites and network servers, as well as techniques to manipulate and convert data at speeds that will make your friends jealous. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Application development can be tricky enough even when you aren't dealing with complex systems programming problems like web-scale concurrency and real-time performance. While it's possible to solve these common issues with additional tools and frameworks, Go handles them right out of the box, making for a more natural and productive coding experience. Developed at Google, Go powers nimble startups as well as big enterprises—companies that rely on high-performing services in their infrastructure. About the Book Go in Action is for any intermediate-level developer who has experience with other programming languages and wants a jump-start in learning Go or a more thorough understanding of the language and its internals. This book provides an intensive, comprehensive, and idiomatic view of Go. It focuses on the specification and implementation of the language, including topics like language syntax, Go's type system, concurrency, channels, and testing. What's Inside Language specification and implementation Go's type system Internals of Go's data structures Testing and benchmarking About the Reader This book assumes you're a working developer proficient with another language like Java, Ruby, Python, C#, or C++. About the Authors William Kennedy is a seasoned software developer and author of the blog GoingGo.Net. Brian Ketelsen and Erik St. Martin are the organizers of GopherCon and coauthors of the Go-based Skynet framework. Table of Contents Introducing Go Go quick-start Packaging and tooling Arrays, slices, and maps Go's type system Concurrency Concurrency patterns Standard library Testing and benchmarking*

*Summary Online recommender systems help users find movies, jobs, restaurants-even romance! There's an art in combining statistics, demographics, and query terms to achieve results that will delight them. Learn to build a recommender system the right way: it can make or break your application! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Recommender systems are everywhere, helping you find everything from movies to jobs, restaurants to hospitals, even romance. Using behavioral and demographic data, these systems make predictions about what users will be most interested in at a particular time, resulting in high-quality, ordered, personalized suggestions. Recommender systems are practically a necessity for keeping your site content current, useful, and interesting to your visitors. About the Book Practical Recommender Systems explains how recommender systems work and shows how to create and apply them for your site. After covering the basics, you'll see how to collect user data and produce personalized recommendations. You'll learn how to use the most popular recommendation algorithms and see examples of them in action on sites like Amazon and Netflix. Finally, the book covers scaling problems and other issues you'll encounter as your site grows. What's inside How to collect and understand user behavior Collaborative and content-based filtering Machine learning algorithms Real-world examples in Python About the Reader Readers need intermediate programming and database skills. About the Author Kim Falk is an experienced data scientist who works daily with machine learning and recommender systems. Table of Contents PART 1 - GETTING READY FOR RECOMMENDER SYSTEMS What is a recommender? User behavior and how to collect it Monitoring the system Ratings and how to calculate them Non-personalized recommendations The user (and content) who came in from the cold PART 2 - RECOMMENDER ALGORITHMS Finding similarities among users and among content Collaborative filtering in the neighborhood Evaluating and testing your recommender Content-based filtering Finding hidden genres with matrix factorization Taking the best of all algorithms: implementing hybrid recommenders Ranking and learning to rank Future of recommender systems*

*Practical Machine Learning for Data Analysis Using Python is a problem solver's guide for creating real-world intelligent systems. It provides a comprehensive approach with concepts, practices, hands-on examples, and sample code. The book teaches readers the vital skills required to understand and solve different problems with machine learning. It teaches machine learning techniques necessary to become a successful practitioner, through the presentation of real-world case studies in Python machine learning ecosystems. The book also focuses on building a foundation of machine learning knowledge to solve different real-world case studies across various fields, including biomedical signal analysis, healthcare, security, economics, and finance. Moreover, it covers a wide range of machine learning models, including regression, classification, and forecasting. The goal of the book is to help a broad range of readers, including IT professionals, analysts, developers, data scientists, engineers, and graduate students, to solve their own real-world problems. Offers a comprehensive overview of the application of machine learning tools in data analysis across a wide range of subject areas Teaches readers how to apply machine learning techniques to biomedical signals, financial data, and healthcare data Explores important classification and regression algorithms as well as other machine learning techniques Explains how to use Python to handle data extraction, manipulation, and exploration techniques, as well as how to visualize data spread across multiple dimensions and extract useful features*

*Hibernate has clearly arrived. Are you ready to benefit from its simple way of working with relational databases as Java objects? This PDF updates the introductory material from the award-winning Hibernate: A Developer's Notebook to teach you how to jump right in and get productive with the current release of Hibernate. You'll be walked through the ins and outs of setting up Hibernate and some related tools that make it easier to use—and that may give you new ideas about how to store information in your Java programs. In short, this PDF gives you exactly the information you need to start using Hibernate today.*

*Knative in Action*

*Elasticsearch in Action*

*AWS Security*

*Running Applications on Container Linux*

*Real-World Machine Learning*

*Hydraulic Design Series*

Introduction to Information RetrievalCambridge University Press

Summary Testing Microservices with Mountebank is your guide to the ins and outs of testing microservices with service virtualization. The book offers unique insights into microservices application design and state-of-the-art testing practices that will deepen your microservices skills and improve your applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Even if you lab test each service in isolation, it's challenging—and potentially dangerous—to test a live microservices system that's changing and growing. Fortunately, you can use Mountebank to "imitate" the components of a distributed microservices application to give you a good approximation of the runtime conditions as you test individual services. About the Book Testing Microservices with Mountebank introduces the powerful practice of service virtualization. In it, author Brandon Byars, Mountebank's creator, offers unique insights into microservices application design and state-of-the-art testing practices. You'll expand your understanding of microservices as you work with Mountebank's imposters, responses, behaviors, and programmability. By mastering the powerful testing techniques in this unique book, your microservices skills will deepen and your applications will improve. For real. What's inside The core concepts of service virtualization Testing using canned responses Programming Mountebank Performance testing About the Reader Written for developers familiar with SOA or microservices systems. About the Author Brandon Byars is the author and chief maintainer of Mountebank and a principal consultant at ThoughtWorks. Table of Contents PART 1 - FIRST STEPS Testing microservices Taking mountebank for a test drive PART 2 - USING MOUNTEBANK Testing using canned responses Using predicates to send different responses Adding record/replay behavior Programming mountebank Adding behaviors Protocols PART 3 - CLOSING THE LOOP Mountebank and continuous delivery Performance testing with mountebank

How does the computer learn to understand what it sees? Deep Learning for Vision Systems answers that by applying deep learning to computer vision. Using only high school algebra, this book illuminates the concepts behind visual intuition. You'll understand how to use deep learning architectures to build vision system applications for image generation and facial recognition.

Summary Computer vision is central to many leading-edge innovations, including self-driving cars, drones, augmented reality, facial recognition, and much, much more. Amazing new computer vision applications are developed every day, thanks to rapid advances in AI and deep learning (DL). Deep Learning for Vision Systems teaches you the concepts and tools for building intelligent, scalable computer vision systems that can identify and react to objects in images, videos, and real life. With author Mohamed Elgendy's expert instruction and illustration of real-world projects, you'll finally grok state-of-the-art deep learning techniques, so you can build, contribute to, and lead in the exciting realm of computer vision! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology How much has computer vision advanced? One ride in a Tesla is the only answer you'll need. Deep learning techniques have led to exciting breakthroughs in facial recognition, interactive simulations, and medical imaging, but nothing beats seeing a car respond to real-world stimuli while speeding down the highway. About the book How does the computer learn to understand what it sees? Deep Learning for Vision Systems answers that by applying deep learning to computer vision. Using only high school algebra, this book illuminates the concepts behind visual intuition. You'll understand how to use deep learning architectures to build vision system applications for image generation and facial recognition. What's inside Image classification and object detection Advanced deep learning architectures Transfer learning and generative adversarial networks DeepDream and neural style transfer Visual embeddings and image search About the reader For intermediate Python programmers. About the author Mohamed Elgendy is the VP of Engineering at Rakuten. A seasoned AI expert, he has previously built and managed AI products at Amazon and Twilio. Table of Contents PART 1 - DEEP LEARNING FOUNDATION 1 Welcome to computer vision 2 Deep learning and neural networks 3 Convolutional neural networks 4 Structuring DL projects and hyperparameter tuning PART 2 - IMAGE CLASSIFICATION AND DETECTION 5 Advanced CNN architectures 6 Transfer learning 7 Object detection with R-CNN, SSD, and YOLO PART 3 - GENERATIVE MODELS AND VISUAL EMBEDDINGS 8 Generative adversarial networks (GANs) 9 DeepDream and neural style transfer 10 Visual embeddings

All films with a predominantly or entirely African American cast or that were about African Americans are detailed here. Each entry includes cast and credits, year of release, studio, distributor, type of film (feature, short or documentary) and other production details. In most cases, a brief synopsis of the film or contemporary reviews of it follow. In the appendices, film credits for over 1,850 actors and actresses are provided, along with a listing of film companies.

Using Specification by Example and Gherkin

Spring Roo in Action

Covers Apache Spark 3 with Examples in Java, Python, and Scala

Bootstrapping Microservices with Docker, Kubernetes, and Terraform

Writing Great Specifications

Summary A developer-focused guide to writing applications using Spring Boot. You'll learn how to bypass the tedious configuration steps so that you can concentrate on your application's behavior. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The Spring Framework simplifies enterprise Java development, but it does require lots of tedious configuration work. Spring Boot radically streamlines spinning up a Spring application. You get automatic configuration and a model with established conventions for build-time and runtime dependencies. You also get a handy command-line interface you can use to write scripts in Groovy. Developers who use Spring Boot often say that they can't imagine going back to hand configuring their applications. About the Book Spring Boot in Action is a developer-focused guide to writing applications using Spring Boot. In it, you'll learn how to bypass configuration steps so you can focus on your application's behavior. Spring expert Craig Walls uses interesting and practical examples to teach you both how to use the default settings effectively and how to override and customize Spring Boot for your unique environment. Along the way, you'll pick up insights from Craig's years of Spring development experience. What's Inside Develop Spring apps more efficiently Minimal to no configuration Runtime metrics with the Actuator Covers Spring Boot 1.3 About the Reader Written for readers familiar with the Spring Framework. About the Author Craig Walls is a software developer, author of the popular book Spring in Action, Fourth Edition, and a frequent speaker at conferences. Table of Contents Bootstrapping Spring Developing your first Spring Boot application Customizing configuration Testing with Spring Boot Getting Groovy with the Spring Boot CLI Applying Grails in Spring Boot Taking a peek inside with the Actuator Deploying Spring Boot applications APPENDIXES Spring Boot developer tools Spring Boot starters Configuration properties Spring Boot dependencies

Summary Sails.js in Action is a comprehensive guide to buildingenterprise-capable web applications using Node and Sails. Written by the creators of the Sails.js framework, this book carefully introduces each concept, technique, and tool with real-world examples and crystal clear explanations. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Sails makes professional web development a breeze. This instantly familiar MVC framework automatically handles the tedious application boilerplate, so you can concentrate on developing features and creating business value. You get powerful tools for rapid API development, task automation, an ORM, and easy integration with any web, mobile, or IoT frontend. And because you're using Node.js, it's JavaScript all the way down. About the Book Sails.js in Action is a comprehensive guide on how to build enterprise-

capable web applications. Written by the creators of Sails.js, this book introduces each concept and technique with real-world examples and thorough explanations. As you read, you'll learn to build the backend of a typical web application while you explore real-time programming with WebSockets, security fundamentals, and best practices for building Sails/Node.js apps. What's Inside Creating the backend for a web, mobile, or IoT app Real-time programming with WebSockets User management, authentication, and password recovery Using Sails to autogenerate REST APIs Custom backend development and third-party API integrations About the Reader Readers should be comfortable with JavaScript and frontend web development. About the Author Mike McNeil is the creator of Sails.js. Irl Nathan is the producer of sailsCasts, a series focused on using Sails. Table of Contents Getting started First steps Using static assets Using the blueprint API Custom backend code Using models Custom actions Server-rendered views Authentication and sessions Policies and access control Refactoring Embedded data and associations Ratings, followers, and search Realtime with WebSockets Deployment, testing, and security Summary Elasticsearch in Action teaches you how to build scalable search applications using Elasticsearch. You'll ramp up fast, with an informative overview and an engaging introductory example. Within the first few chapters, you'll pick up the core concepts you need to implement basic searches and efficient indexing. With the fundamentals well in hand, you'll go on to gain an organized view of how to optimize your design. Perfect for developers and administrators building and managing search-oriented applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Modern search seems like magic—you type a few words and the search engine appears to know what you want. With the Elasticsearch real-time search and analytics engine, you can give your users this magical experience without having to do complex low-level programming or understand advanced data science algorithms. You just install it, tweak it, and get on with your work. About the Book Elasticsearch in Action teaches you how to write applications that deliver professional quality search. As you read, you'll learn to add basic search features to any application, enhance search results with predictive analysis and relevancy ranking, and use saved data from prior searches to give users a custom experience. This practical book focuses on Elasticsearch's REST API via HTTP. Code snippets are written mostly in bash using cURL, so they're easily translatable to other languages. What's Inside What is a great search application? Building scalable search solutions Using Elasticsearch with any language Configuration and tuning About the Reader For developers and administrators building and managing search-oriented applications. About the Authors Radu Gheorghie is a search consultant and software engineer. Matthew Lee Hinman develops highly available, cloud-based systems. Roy Russo is a specialist in predictive analytics. Table of Contents PART 1 CORE ELASTICSEARCH FUNCTIONALITY Introducing Elasticsearch Diving into the functionality Indexing, updating, and deleting data Searching your data Analyzing your data Searching with relevancy Exploring your data with aggregations Relations among documents PART 2 ADVANCED ELASTICSEARCH FUNCTIONALITY Scaling out Improving performance Administering your cluster

\* This will be the first book to show how to implement a test-driven development process in detail as it applies to real world J2EE applications. \* Combines the tools and methodologies of test-driven development with real world use cases, unlikely most titles which cover one or the other. \* Looks at the complete process including test coverage strategies, test organization, incorporating TDD into new and existing projects as well as how to automate it all. \* This book is not version specific.

Elm in Action

Spark in Action, Second Edition

Introduction to Information Retrieval

Big data, machine learning, and more, using Python tools

Design Charts for Open-channel Flow

Grokking Deep Reinforcement Learning

*Summary CoreOS in Action is a clear tutorial for deploying container-based systems on CoreOS Container Linux. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Traditional Linux server distributions include every component required for anything you might be hosting, most of which you don't need if you've containerized your apps and services. CoreOS Container Linux is a bare-bones distro with only the essential bits needed to run containers like Docker. Container Linux is a fast, secure base layer for any container-centric distributed application, including microservices. And say goodbye to patch scheduling; when Container Linux needs an update, you just hot-swap the whole OS. About the Book CoreOS in Action is a clear tutorial for deploying container-based systems on CoreOS Container Linux. Inside, you'll follow along with examples that teach you to set up CoreOS on both private and cloud systems, and to practice common sense monitoring and upgrade techniques with real code. You'll also explore important container-aware application designs, including microservices, web, and Big Data examples with real-world use cases to put your learning into perspective. Summary Handling scaling and failures gracefully Container-driven application designs Cloud, on-premises, and hybrid deployment Smart logging and backup practices About the Reader Written for readers familiar with Linux and the basics of Docker. About the Author Matt Bailey is currently a technical lead at ZeniMax. He has worked in higher education and with scientific computing, medical, and networking technology companies, as well as a few startups. You can find him online via <https://mldb.io>. Table of Contents PART 1 - GETTING TO KNOW COREOS Introduction to the CoreOS family Getting started on your workstation Expecting failure: fault tolerance in CoreOS PART 2 - APPLICATION ARCHITECTURE CoreOS in production Application architecture and workflow Web stack application example Big Data stack PART 3 - COREOS IN PRODUCTION CoreOS on AWS Bringing it together: deployment System administration*

*Running your systems in the cloud doesn't automatically make them secure. Learn the tools and new management approaches you need to create secure apps and infrastructure on AWS. In AWS Security you'll learn how to: Securely grant access to AWS resources to coworkers and customers Develop policies for ensuring proper access controls Lock-down network controls using VPCs Record audit logs and use them to identify attacks Track and assess the security of an AWS account Counter common attacks and vulnerabilities Written by security engineer Dylan Shields, AWS Security provides comprehensive coverage on the key tools and concepts you can use to defend AWS-based systems. You'll learn how to honestly assess your existing security protocols, protect against the most common attacks on cloud applications, and apply best practices to configuring identity and access management and virtual private clouds. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology AWS provides a suite of strong security services, but it's up to you to configure them correctly for your applications and data. Cloud platforms require you to learn new techniques for identity management, authentication, monitoring, and other key security practices. This book gives you everything you'll need to defend your AWS-based applications from the most common threats facing your business. About the book AWS Security is the guide to AWS security services you'll want on hand when you're facing any cloud security problem. Because it's organized around the most important security tasks, you'll quickly find best practices for data protection, auditing, incident response, and more. As you go, you'll explore several insecure applications, deconstruct the exploits used to attack them, and learn how to react with confidence. What's inside Develop policies for proper access control Securely assign access to AWS resources Lock-down network controls using VPCs Record audit logs and use them to identify attacks Track and assess the security of an AWS account About the reader For software and security engineers building and securing AWS applications. About the author Dylan Shields is a software engineer working on Quantum Computing at Amazon. Dylan was one of the first engineers on the AWS Security Hub team. Table of Contents 1 Introduction to AWS security 2 Identity and access management 3 Managing accounts 4 Policies and procedures for secure access 5 Securing the network: The virtual private cloud 6 Network access protection beyond the VPC 7 Protecting data in the cloud 8 Logging and audit trails 9 Continuous monitoring 10 Incident response and remediation 11 Securing a real-world application*

*Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures.*

*Summary The Spark distributed data processing platform provides an easy-to-implement tool for ingesting, streaming, and processing data from any source. In Spark in Action, Second Edition, you'll learn to take advantage of Spark's core features and incredible processing speed, with applications including real-time computation, delayed evaluation, and machine learning. Spark skills are a hot commodity in enterprises worldwide, and with Spark's powerful and flexible Java APIs, you can reap all the benefits without first learning Scala or Hadoop. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Analyzing enterprise data starts by reading, filtering, and merging files and streams from many sources. The Spark data processing engine handles this varied volume like a champ, delivering speeds 100 times faster than Hadoop systems. Thanks to SQL support, an intuitive interface, and a straightforward multilanguage API, you can use Spark without learning a complex new ecosystem. About the book Spark in Action, Second Edition, teaches you to create end-to-end analytics applications. In this entirely new book, you'll learn from interesting Java-based examples, including a complete data pipeline for processing NASA satellite data. And you'll discover Java, Python, and Scala code samples hosted on GitHub that you can explore and adapt, plus appendixes that give you a cheat sheet for installing tools and understanding Spark-specific terms. What's inside Writing Spark applications in Java Spark application architecture Ingestion through files, databases, streaming, and Elasticsearch Querying distributed datasets with Spark SQL About the reader This book does not assume previous experience with Spark, Scala, or Hadoop. About the author Jean-Georges Perrin is an experienced data and software architect. He is France's first IBM Champion and has been honored for 12 consecutive years. Table of Contents PART 1 - THE THEORY CRIPPLED BY AWESOME EXAMPLES 1 So, what is Spark, anyway? 2 Architecture and flow 3 The majestic role of the dataframe 4 Fundamentally lazy 5 Building a simple app for deployment 6 Deploying your simple app PART 2 - INGESTION 7 Ingestion from files 8 Ingestion from databases 9 Advanced ingestion: finding data sources and building your own 10 Ingestion through structured streaming PART 3 - TRANSFORMING YOUR DATA 11 Working with SQL 12 Transforming your data 13 Transforming entire documents 14 Extending transformations with user-defined functions 15 Aggregating your data PART 4 - GOING FURTHER 16 Cache and checkpoint: Enhancing Spark's performances 17 Exporting data and building full data pipelines 18 Exploring deployment*

*Contemporary Political Cartooning in Australia*

*Ember.js in Action*

*Jetan*

*Practical Recommender Systems*

Summary Introducing Data Science teaches you how to accomplish the fundamental tasks that occupy data scientists. Using the Python language and common Python libraries, you'll experience firsthand the challenges of dealing with data at scale and gain a solid foundation in data science.

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Many companies need developers with data science skills to work on projects ranging from social media marketing to machine learning. Discovering what you need to learn to begin a career as a data scientist can seem bewildering. This book is designed to help you get started. About the Book Introducing Data ScienceIntroducing Data Science explains vital data science concepts and teaches you how to accomplish the fundamental tasks that occupy data scientists. You'll explore data visualization, graph databases, the use of NoSQL, and the data science process. You'll use the Python language and common Python libraries as you experience firsthand the challenges of dealing with data at scale. Discover how Python allows you to gain insights from data sets so big that they need to be stored on multiple machines, or from data moving so quickly that no single machine can handle it. This book gives you hands-on experience with the most popular Python data science libraries, Scikit-learn and StatsModels. After reading this book, you'll have the solid foundation you need to start a career in data science. What's Inside Handling large data Introduction to machine learning Using Python to work with data Writing data science algorithms About the Reader This book assumes you're comfortable reading code in Python or a similar language, such as C, Ruby, or JavaScript. No prior experience with data science is required. About the Authors Davy Cielen, Arno D. B. Meysman, and Mohamed Ali are the founders and managing partners of Optimately and Maiton, where they focus on developing data science projects and solutions in various sectors. Table of Contents Data science in a big data world The data science process Machine learning Handling large data on a single computer First steps in big data Join the NoSQL movement The rise of graph databases Text mining and text analytics Data visualization to the end user

Building software is harder than ever. As a developer, you not only have to chase ever-changing technological trends but also need to understand the business domains behind the software. This practical book provides you with a set of core patterns, principles, and practices for analyzing business domains, understanding business strategy, and, most importantly, aligning software design with its business needs. Author Vlad Khononov shows you how these practices lead to robust implementation of business logic and help to future-proof software design and architecture. You'll examine the relationship between domain-driven design (DDD) and other methodologies to ensure you make architectural decisions that meet business requirements. You'll also explore the real-life story of implementing DDD in a startup company. With this book, you'll learn how to: Analyze a company's business domain to learn how the system you're building fits its competitive strategy Use DDD's strategic and tactical tools to architect effective software solutions that address business needs Build a shared understanding of the business domains you encounter Decompose a system into bounded contexts Coordinate the work of multiple teams Gradually introduce DDD to brownfield projects