

Mastering Git Attain Expert Level Proficiency Wit

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Joomla for Developers Alex Manfield 2018-01-16 Joomla is a free, open source CMS (Content Management System) written in PHP. There are are about 90 million downloads worldwide. Joomla can help you developing great web applications in a very short time. Joomla is fast and reliable, fully compatible with PHP 7.1, and you can edit the pages directly from the frontend. More intuitive than other CMSs, Joomla is used by Harvard University, Linux, MTV, UNRIC (United Nations), and many others. This book will help you to install & customize Joomla, with your own code. You'll learn the basics of many programming languages essential to build your application. Many tools are discussed to facilitate your development & debug, and you can download sample applications discussed in the book.

[Git for Programmers](#) Jesse Liberty 2021-06-30 Learn to track, branch, merge, and manage code revisions for real-world development scenarios Key Features Master Git and maintain your projects better through version control Get to grips with Git's typical workflows, advanced functions, and their implementations Learn the key Git commands to better manage your repository Book Description Whether you're looking for a book to deepen your understanding of Git or a refresher, this book is the ultimate guide to Git. Git for Programmers comprehensively equips you with actionable insights on advanced Git concepts in an engaging and straightforward way. As you progress through the chapters, you'll gain expertise (and confidence) on Git with lots of practical use cases. After a quick refresher on git history and installation, you'll dive straight into the creation and cloning of your repository. You'll explore Git places, branching, and GUIs to get familiar with the fundamentals. Then you'll learn how to handle merge conflicts, rebase, amend, interactive rebase, and use the log, as well as explore important Git commands for managing your repository. The troubleshooting part of this Git book will include detailed instructions on how to bisect, blame, and several other problem handling techniques that will complete your newly acquired Git arsenal. By the end of this book, you'll be using Git with confidence. Saving, sharing, managing files as well as undoing mistakes and basically rewriting history will be a breeze. What you will learn Create remote and local repositories and learn how to clone them

Understand the difference between local and remote repositories Use, manage, and merge branches back into the main branch Utilize tools to manage merge conflicts Manage commits on your local machine through interactive rebasing Use the log to gain control over all the data in your repository Use bisect, blame, and other tools to undo Git mistakes Who this book is for If you have basic understanding of Git and want to strengthen your command over advanced techniques and navigate different functions, this book is for you. Knowing the fundamentals of Git will help you get the most out of this book, but beginners willing to invest some extra effort will be able to follow along as well.

Git Essentials Ferdinando Santacroce 2015-04-28 If you are a software developer with little or no experience of versioning systems, or are familiar with other centralized versioning systems, then this book is for you. If you have some experience working with command lines or using Linux admin or just using Unix and want to know more about Git, then this book is ideal for you.

97 Things Every Programmer Should Know Kevlin Henney 2010-02-05 Tap into the wisdom of experts to learn what every programmer should know, no matter what language you use. With the 97 short and extremely useful tips for programmers in this book, you'll expand your skills by adopting new approaches to old problems, learning appropriate best practices, and honing your craft through sound advice. With contributions from some of the most experienced and respected practitioners in the industry--including Michael Feathers, Pete Goodliffe, Diomidis Spinellis, Cay Horstmann, Verity Stob, and many more--this book contains practical knowledge and principles that you can apply to all kinds of projects. A few of the 97 things you should know: "Code in the Language of the Domain" by Dan North "Write Tests for People" by Gerard Meszaros "Convenience Is Not an -ility" by Gregor Hohpe "Know Your IDE" by Heinz Kabutz "A Message to the Future" by Linda Rising "The Boy Scout Rule" by Robert C. Martin (Uncle Bob) "Beware the Share" by Udi Dahan

Version Control with Git Jon Loeliger 2012-08-14 Get up to speed on Git for tracking, branching, merging, and managing code revisions. Through a series of step-by-step tutorials, this practical guide takes you quickly from Git fundamentals to advanced techniques, and provides friendly yet rigorous advice for navigating the many functions of this open source version control system. This thoroughly revised edition also includes tips for manipulating trees, extended coverage of the reflog and stash, and a complete introduction to the GitHub repository. Git lets you manage code development in a virtually endless variety of ways, once you understand how to harness the system's flexibility. This book shows you how. Learn how to use Git for several real-world development scenarios Gain insight into Git's common-use cases, initial tasks, and basic functions Use the system for both centralized and distributed version control Learn how to manage merges, conflicts, patches, and diffs Apply advanced techniques such as rebasing, hooks, and ways to handle submodules Interact with Subversion (SVN) repositories—including SVN to Git conversions Navigate, use, and contribute to open source projects though GitHub

The First 20 Hours Josh Kaufman 2013-06-13 Forget the 10,000 hour rule— what if it's possible to learn the basics of any new skill in 20 hours or less? Take a moment to consider how many things you want to learn to

do. What's on your list? What's holding you back from getting started? Are you worried about the time and effort it takes to acquire new skills—time you don't have and effort you can't spare? Research suggests it takes 10,000 hours to develop a new skill. In this nonstop world when will you ever find that much time and energy? To make matters worse, the early hours of practicing something new are always the most frustrating. That's why it's difficult to learn how to speak a new language, play an instrument, hit a golf ball, or shoot great photos. It's so much easier to watch TV or surf the web . . . In *The First 20 Hours*, Josh Kaufman offers a systematic approach to rapid skill acquisition— how to learn any new skill as quickly as possible. His method shows you how to deconstruct complex skills, maximize productive practice, and remove common learning barriers. By completing just 20 hours of focused, deliberate practice you'll go from knowing absolutely nothing to performing noticeably well. Kaufman personally field-tested the methods in this book. You'll have a front row seat as he develops a personal yoga practice, writes his own web-based computer programs, teaches himself to touch type on a nonstandard keyboard, explores the oldest and most complex board game in history, picks up the ukulele, and learns how to windsurf. Here are a few of the simple techniques he teaches: Define your target performance level: Figure out what your desired level of skill looks like, what you're trying to achieve, and what you'll be able to do when you're done. The more specific, the better. Deconstruct the skill: Most of the things we think of as skills are actually bundles of smaller subskills. If you break down the subcomponents, it's easier to figure out which ones are most important and practice those first. Eliminate barriers to practice: Removing common distractions and unnecessary effort makes it much easier to sit down and focus on deliberate practice. Create fast feedback loops: Getting accurate, real-time information about how well you're performing during practice makes it much easier to improve. Whether you want to paint a portrait, launch a start-up, fly an airplane, or juggle flaming chainsaws, *The First 20 Hours* will help you pick up the basics of any skill in record time . . . and have more fun along the way.

The Cult of Smart Fredrik deBoer 2020-08-04 Named one of Vulture's Top 10 Best Books of 2020! Leftist firebrand Fredrik deBoer exposes the lie at the heart of our educational system and demands top-to-bottom reform. Everyone agrees that education is the key to creating a more just and equal world, and that our schools are broken and failing. Proposed reforms variously target incompetent teachers, corrupt union practices, or outdated curricula, but no one acknowledges a scientifically-proven fact that we all understand intuitively: Academic potential varies between individuals, and cannot be dramatically improved. In *The Cult of Smart*, educator and outspoken leftist Fredrik deBoer exposes this omission as the central flaw of our entire society, which has created and perpetuated an unjust class structure based on intellectual ability. Since cognitive talent varies from person to person, our education system can never create equal opportunity for all. Instead, it teaches our children that hierarchy and competition are natural, and that human value should be based on intelligence. These ideas are counter to everything that the left believes, but until they acknowledge the existence of individual cognitive differences, progressives remain complicit in keeping the status quo in place. This passionate, voice-driven manifesto demands that we embrace a new goal for education: equality of outcomes. We must create a world that has a place for everyone, not just the academically talented. But we'll never achieve this dream until the Cult of Smart is destroyed.

Visual Studio Code Bruce Johnson 2019-09-11 Expert guidance on using Visual Studio Code for editing and

debugging your web development projects Visual Studio Code, a free, open source, cross-compatible source code editor, is one of the most popular choices for web developers. It is fast, lightweight, customizable, and contains built-in support for JavaScript, Typescript, and Node.js extensions for other languages, including C++, Python, and PHP. Features such as debugging capability, embedded Git control, syntax highlighting, code snippets, and IntelliSense intelligent code completion support—several of which set it apart from the competition—help make Visual Studio Code an impressive, out-of-the-box solution. Visual Studio Code: End-to-End Editing and Debugging Tools for Web Developers helps readers to become familiar with and productive in Visual Studio Code. This up-to-date guide covers all of the essential components of the software, including the editing features of the workspace, advanced functionality such as code refactoring and key binding, and integration with Grunt, Gulp, NPM, and other external tools. New users, experienced developers, and those considering moving from another developer tool will benefit from this book's detailed, yet easy-to-follow information on Visual Studio Code. This book: Teaches readers how to use Visual Studio Code to do full-stack development Explains the steps to install Visual Studio Code on Windows, Mac and Linux platforms Provides a foundation for non-users considering moving to Visual Studio Code Helps current users expand their knowledge of the tool and its available extensions Describes how to open a .NET Core project and get end-to-end execution and debugging functionality Visual Studio Code: End-to-End Editing and Debugging Tools for Web Developers is an invaluable guide for both professional and hobbyist web developers seeking immediately-useful information on Visual Studio Code.

Negotiating for Success: Essential Strategies and Skills George J. Siedel 2014-10-04 We all negotiate on a daily basis. We negotiate with our spouses, children, parents, and friends. We negotiate when we rent an apartment, buy a car, purchase a house, and apply for a job. Your ability to negotiate might even be the most important factor in your career advancement. Negotiation is also the key to business success. No organization can survive without contracts that produce profits. At a strategic level, businesses are concerned with value creation and achieving competitive advantage. But the success of high-level business strategies depends on contracts made with suppliers, customers, and other stakeholders. Contracting capability—the ability to negotiate and perform successful contracts—is the most important function in any organization. This book is designed to help you achieve success in your personal negotiations and in your business transactions. The book is unique in two ways. First, the book not only covers negotiation concepts, but also provides practical actions you can take in future negotiations. This includes a Negotiation Planning Checklist and a completed example of the checklist for your use in future negotiations. The book also includes (1) a tool you can use to assess your negotiation style; (2) examples of “decision trees,” which are useful in calculating your alternatives if your negotiation is unsuccessful; (3) a three-part strategy for increasing your power during negotiations; (4) a practical plan for analyzing your negotiations based on your reservation price, stretch goal, most-likely target, and zone of potential agreement; (5) clear guidelines on ethical standards that apply to negotiations; (6) factors to consider when deciding whether you should negotiate through an agent; (7) psychological tools you can use in negotiations—and traps to avoid when the other side uses them; (8) key elements of contract law that arise during negotiations; and (9) a checklist of factors to use when you evaluate your performance as a negotiator. Second, the book is unique in its holistic approach to the negotiation process. Other books often focus narrowly either on negotiation or on contract law. Furthermore, the books on negotiation tend to focus on what happens

at the bargaining table without addressing the performance of an agreement. These books make the mistaken assumption that success is determined by evaluating the negotiation rather than evaluating performance of the agreement. Similarly, the books on contract law tend to focus on the legal requirements for a contract to be valid, thus giving short shrift to the negotiation process that precedes the contract and to the performance that follows. In the real world, the contracting process is not divided into independent phases. What happens during a negotiation has a profound impact on the contract and on the performance that follows. The contract's legal content should reflect the realities of what happened at the bargaining table and the performance that is to follow. This book, in contrast to others, covers the entire negotiation process in chronological order beginning with your decision to negotiate and continuing through the evaluation of your performance as a negotiator. A business executive in one of the negotiation seminars the author teaches as a University of Michigan professor summarized negotiation as follows: "Life is negotiation!" No one ever stated it better. As a mother with young children and as a company leader, the executive realized that negotiations are pervasive in our personal and business lives. With its emphasis on practical action, and with its chronological, holistic approach, this book provides a roadmap you can use when navigating through your life as a negotiator.

Mastering JavaScript Functional Programming Federico Kereki 2017-11-29 Master Functional Programming techniques with this comprehensive guide for writing cleaner, safer, high-performing JavaScript codes About This Book Become proficient and skilled with Functional Programming in JavaScript to solve real-world development problems Successfully apply Functional Programming concepts and techniques to everyday JavaScript programming Bring modularity, reusability, testability, and performance to your web apps Who This Book Is For If you are a JavaScript developer and want to apply functional programming techniques, then this book is for you. Only a basic knowledge of the concepts of functional programming is required for this book. What You Will Learn Create more reliable code with closures and immutable data Convert existing methods into pure functions, and loops into recursive methods Develop more powerful applications with currying and function composition Separate the logic of your system from implementation details Implement composition and chaining techniques to simplify coding Use functional programming techniques where it makes the most sense In Detail Functional programming is a programming paradigm for developing software using functions. Learning to use functional programming is a good way to write more concise code, with greater concurrency and performance. The JavaScript language is particularly suited to functional programming. This book provides comprehensive coverage of the major topics in functional programming with JavaScript to produce shorter, clearer, and testable programs. You'll delve into functional programming; including writing and testing pure functions, reducing side-effects, and other features to make your applications functional in nature. Specifically, we'll explore techniques to simplify coding, apply recursion for loopless coding, learn ways to achieve immutability, implement design patterns, and work with data types. By the end of this book, you'll have developed the JavaScript skills you need to program functional applications with confidence. Style and approach This book takes an easy-to-follow, step-by-step tutorial approach. You will make the most of JavaScript programming with a focus on the progression of functional programming techniques, styles, and detailed information about JavaScript libraries.

Git: Mastering Version Control Ferdinando Santacroce 2016-10-25 Learn everything you need to take full

control of your workflow with Git with this curated Learning Path – dive in and transform the way you work About This Book Master all the basic concepts of Git to protect your code and make it easier to evolve Filled with practical recipes that will teach you how to use the most advanced features of the Git system Harness the full power of the Git version control system to customize Git behavior, manipulate history, integrate external tools, and explore platform shortcuts Who This Book Is For This learning path is for software developers who want to become proficient at using the Git version control system. A basic understanding of any version control system would be beneficial. What You Will Learn Transport your work to a remote repository in a centralized manner Experiment with your code without affecting functional code files Explore some tools used to migrate to Git from other versioning systems without losing your development history Understand the Git data model and how you can navigate the database with simple commands Debug with Git and use various techniques to find faulty commits Customize Git behavior system-wide, on a per-user, per-repository, and per-file basis Master administering and setting up Git repositories, configuring access, finding and recovering from repository errors, and performing repository maintenance Chose a workflow and configure/set up support for the chosen workflow In Detail Git is one of the most popular types of Distributed Version Control System. Since its inception, it has attracted skilled developers due to its robust, powerful, and reliable features. Like most powerful tools, Git can be hard to approach for the newcomers. However, this learning path will help you overcome this fear and become adept at all the basic and advanced tasks in Git. This course starts with an introduction to version control systems before you delve deeply into the essentials of Git. This serves as a primer for the topics to follow such as branching and merging, creating and managing a GitHub personal repository, and fork and pull requests. You'll also learn how to migrate from SVN using Git tools or TortoiseGit and migrate from other VCSs, concluding with a collection of resources, links, and appendices. As you progress on to the next module, you will learn how you can automate the usual Git processes by utilizing the hook system built into Git. It also covers advanced repository management, including different options to rewrite the history of a Git repository before you discover how you can work offline with Git, how to track what is going on behind the scenes, and how to use the stash for different purposes. Moving forward, you will gain deeper insights into Git's architecture, its underlying concepts, behavior, and best practices. It gives a quick implementation example of using Git for a collaborative development of a sample project to establish the foundation knowledge of Git operational tasks and concepts. By exploring advanced Git practices, you will attain a deeper understanding of Git's behavior, allowing you to customize and extend existing recipes and write your own. This Learning Path is a blend of content, all packaged up keeping your journey in mind. It includes content from the following Packt products: Git Essentials, Ferdinando Santacroce Git Version Control Cookbook, Aske Olsson and Rasmus Voss Mastering Git, Jakub Narebski Style and approach Its step-by-step approach with useful information makes this course the ultimate guide to understanding and mastering Git. This course will show the road to mastery example by example, while also explaining the mental model of Git.

Mastering Sublime Text Dan Peleg 2013-12-24 Mastering Sublime Text is an easy-to-understand, step-by-step guide for learning all of the features of Sublime Text, including author tips and tricks. Every topic includes code examples and highlighted screenshots to make it easier to understand. This book is for developers with experience in any type of programming language, and for those who want to start using Sublime Text or

perfect their existing skills. No knowledge of Sublime Text or any other code editor or IDE is expected.

Data Parallel C++ James Reinders 2020-11-19 Learn how to accelerate C++ programs using data parallelism. This open access book enables C++ programmers to be at the forefront of this exciting and important new development that is helping to push computing to new levels. It is full of practical advice, detailed explanations, and code examples to illustrate key topics. Data parallelism in C++ enables access to parallel resources in a modern heterogeneous system, freeing you from being locked into any particular computing device. Now a single C++ application can use any combination of devices—including GPUs, CPUs, FPGAs and AI ASICs—that are suitable to the problems at hand. This book begins by introducing data parallelism and foundational topics for effective use of the SYCL standard from the Khronos Group and Data Parallel C++ (DPC++), the open source compiler used in this book. Later chapters cover advanced topics including error handling, hardware-specific programming, communication and synchronization, and memory model considerations. Data Parallel C++ provides you with everything needed to use SYCL for programming heterogeneous systems. What You'll Learn Accelerate C++ programs using data-parallel programming Target multiple device types (e.g. CPU, GPU, FPGA) Use SYCL and SYCL compilers Connect with computing's heterogeneous future via Intel's oneAPI initiative Who This Book Is For Those new data-parallel programming and computer programmers interested in data-parallel programming using C++.

Pragmatic Thinking and Learning Andy Hunt 2008-10-28 Printed in full color. Software development happens in your head. Not in an editor, IDE, or design tool. You're well educated on how to work with software and hardware, but what about wetware--our own brains? Learning new skills and new technology is critical to your career, and it's all in your head. In this book by Andy Hunt, you'll learn how our brains are wired, and how to take advantage of your brain's architecture. You'll learn new tricks and tips to learn more, faster, and retain more of what you learn. You need a pragmatic approach to thinking and learning. You need to Refactor Your Wetware. Programmers have to learn constantly; not just the stereotypical new technologies, but also the problem domain of the application, the whims of the user community, the quirks of your teammates, the shifting sands of the industry, and the evolving characteristics of the project itself as it is built. We'll journey together through bits of cognitive and neuroscience, learning and behavioral theory. You'll see some surprising aspects of how our brains work, and how you can take advantage of the system to improve your own learning and thinking skills. In this book you'll learn how to: Use the Dreyfus Model of Skill Acquisition to become more expert Leverage the architecture of the brain to strengthen different thinking modes Avoid common "known bugs" in your mind Learn more deliberately and more effectively Manage knowledge more efficiently

Professional NoSQL Shashank Tiwari 2011-08-31 A hands-on guide to leveraging NoSQL databases NoSQL databases are an efficient and powerful tool for storing and manipulating vast quantities of data. Most NoSQL databases scale well as data grows. In addition, they are often malleable and flexible enough to accommodate semi-structured and sparse data sets. This comprehensive hands-on guide presents fundamental concepts and practical solutions for getting you ready to use NoSQL databases. Expert author Shashank Tiwari begins with a helpful introduction on the subject of NoSQL, explains its characteristics and typical uses, and looks at where it

fits in the application stack. Unique insights help you choose which NoSQL solutions are best for solving your specific data storage needs. *Professional NoSQL: Demystifies the concepts that relate to NoSQL databases, including column-family oriented stores, key/value databases, and document databases. Delves into installing and configuring a number of NoSQL products and the Hadoop family of products. Explains ways of storing, accessing, and querying data in NoSQL databases through examples that use MongoDB, HBase, Cassandra, Redis, CouchDB, Google App Engine Datastore and more. Looks at architecture and internals. Provides guidelines for optimal usage, performance tuning, and scalable configurations. Presents a number of tools and utilities relating to NoSQL, distributed platforms, and scalable processing, including Hive, Pig, RRDtool, Nagios, and more.*

Professional Git Brent Laster 2016-11-28 Leverage the power of Git to smooth out the development cycle Professional Git takes a professional approach to learning this massively popular software development tool, and provides an up-to-date guide for new users. More than just a development manual, this book helps you get into the Git mindset—extensive discussion of corollaries to traditional systems as well as considerations unique to Git help you draw upon existing skills while looking out—and planning for—the differences. Connected labs and exercises are interspersed at key points to reinforce important concepts and deepen your understanding, and a focus on the practical goes beyond technical tutorials to help you integrate the Git model into your real-world workflow. Git greatly simplifies the software development cycle, enabling users to create, use, and switch between versions as easily as you switch between files. This book shows you how to harness that power and flexibility to streamline your development cycle. Understand the basic Git model and overall workflow Learn the Git versions of common source management concepts and commands Track changes, work with branches, and take advantage of Git's full functionality Avoid trip-ups and missteps common to new users Git works with the most popular software development tools and is used by almost all of the major technology companies. More than 40 percent of software developers use it as their primary source control tool, and that number continues to grow; the ability to work effectively with Git is rapidly approaching must-have status, and Professional Git is the comprehensive guide you need to get up to speed quickly.

Mastering Ubuntu Server Jay LaCroix 2020-12-29 This is the third edition of the bestselling one-stop resource for sysadmins and DevOps professionals to learn, configure and use Ubuntu 20.04 for their day-to-day operations and deployments. Key FeaturesA hands-on book that will teach you how to deploy, maintain and troubleshoot Ubuntu ServerLearn to leverage the improved performance and security-related aspects of Ubuntu Server 20.04 LTSNew chapters dedicated to exploring Ubuntu for cloudBook Description Ubuntu Server has taken data centers around the world by storm. Whether you're deploying Ubuntu for a large-scale project or for a small office, it is a stable, customizable, and powerful Linux distribution with innovative and cutting-edge features. For both simple and complex server deployments, Ubuntu's flexible nature can be easily adapted to meet to the needs of your organization. This third edition is updated to cover the advancements of Ubuntu 20.04 LTS and further train you to understand how to use Ubuntu Server, from initial deployment to creating production-ready resources for your network. The book begins with the concepts of user management, group management, and file system permissions. Continuing into managing storage volumes, you will learn how to format storage devices, utilize logical volume management, and monitor disk usage.

Later, you will learn how to virtualize hosts and applications, which will include setting up QEMU & KVM, as well as containerization with both Docker and LXD. As the book continues, you will learn how to automate configuration with Ansible, as well as take a look at writing scripts. Lastly, you will explore best practices and troubleshooting techniques when working with Ubuntu Server that are applicable to real-world scenarios. By the end of this Ubuntu Server book, you will be well-versed in Ubuntu server's advanced concepts and attain the required proficiency needed for Ubuntu Server administration. What you will learn

- Manage users, groups, and permissions
- Optimize the performance of system resources
- Perform disk encryption and decryption with Linux Unified Key Setup (LUKS)
- Set up Secure Shell (SSH) for remote access, and connect it to other nodes
- Share directories using Samba and Network File System (NFS)
- Get familiar with scripting to improve command-line efficiency
- Configure VMs, containers, and orchestrate with MicroK8s and Kubernetes
- Automate server deployments with Ansible and cloud server deployments with Terraform

Who this book is for The book is written to cater to sysadmins and DevOps professionals whose teams are planning to employ an Ubuntu/Linux environment for their development needs. Prior knowledge of Ubuntu is not required. However, it is assumed that you possess some IT admin, Linux, and shell scripting experience.

R for Data Science Hadley Wickham 2016-12-12 Learn how to use R to turn raw data into insight, knowledge, and understanding. This book introduces you to R, RStudio, and the tidyverse, a collection of R packages designed to work together to make data science fast, fluent, and fun. Suitable for readers with no previous programming experience, *R for Data Science* is designed to get you doing data science as quickly as possible. Authors Hadley Wickham and Garrett Grolemund guide you through the steps of importing, wrangling, exploring, and modeling your data and communicating the results. You'll get a complete, big-picture understanding of the data science cycle, along with basic tools you need to manage the details. Each section of the book is paired with exercises to help you practice what you've learned along the way. You'll learn how to:

- Wrangle—transform your datasets into a form convenient for analysis
- Program—learn powerful R tools for solving data problems with greater clarity and ease
- Explore—examine your data, generate hypotheses, and quickly test them
- Model—provide a low-dimensional summary that captures true "signals" in your dataset
- Communicate—learn R Markdown for integrating prose, code, and results

Deep Learning with Python Francois Chollet 2017-11-30 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

Mastering Git Jakub Nar Bski 2016-04-20 Attain expert-level proficiency with Git for enhanced productivity and efficient collaboration by mastering advanced distributed version control features About This Book- Set up Git for solo and collaborative development- Harness the full power of Git version control system to customize Git behavior, manipulate history, integrate external tools and explore platform shortcuts- A detailed guide, which explains how to apply advanced Git techniques and workflows and ways to handle submodules Who This Book Is For If you are a Git user with reasonable knowledge of Git and familiarity with basic concepts such as branching, merging, staging, and workflows, this is the book for you. Basic knowledge of installing Git and software configuration management concepts is essential. What You Will Learn- Explore project history, find revisions using different criteria, and filter and format how history looks- Manage your working directory and staging area for commits and interactively create new revisions and amend them- Set up repositories and branches for collaboration- Submit your own contributions and integrate contributions from other developers via merging or rebasing- Customize Git behavior system-wide, on a per-user, per-repository, and per-file basis- Take up the administration and set up of Git repositories, configure access, find and recover from repository errors, and perform repository maintenance- Chose a workflow and configure and set up support for the chosen workflow In Detail Git is one of the most popular types of Source Code Management (SCM) and Distributed Version Control System (DVCS). Despite the powerful and versatile nature of the tool enveloping strong support for nonlinear development and the ability to handle large projects efficiently, it is a complex tool and often regarded as "user-unfriendly". Getting to know the ideas and concepts behind the architecture of Git will help you make full use of its power and understand its behavior. Learning the best practices and recommended workflows should help you to avoid problems and ensure trouble-free development. The book scope is meticulously designed to help you gain deeper insights into Git's architecture, its underlying concepts, behavior, and best practices. Mastering Git starts with a quick implementation

example of using Git for a collaborative development of a sample project to establish the foundation knowledge of Git operational tasks and concepts. Furthermore, as you progress through the book, the tutorials provide detailed descriptions of various areas of usage: from archaeology, through managing your own work, to working with other developers. This book also helps augment your understanding to examine and explore project history, create and manage your contributions, set up repositories and branches for collaboration in centralized and distributed version control, integrate work from other developers, customize and extend Git, and recover from repository errors. By exploring advanced Git practices, you will attain a deeper understanding of Git's behavior, allowing you to customize and extend existing recipes and write your own. Style and approach Step-by-step instructions and useful information make this book the ultimate guide to understanding and mastering Git. This book will show road to mastery example by example, while explaining mental model of Git. The Introduction section covers the 'Essentials' just for refreshing the basics. The main highlight is that the concepts are based on HOW the technology/framework works and not just practical 'WHAT to do'.

The Magic of Thinking Big David J. Schwartz 2014-12-02 The timeless and practical advice in *The Magic of Thinking Big* clearly demonstrates how you can: Sell more Manage better Lead fearlessly Earn more Enjoy a happier, more fulfilling life With applicable and easy-to-implement insights, you'll discover: Why believing you can succeed is essential How to quit making excuses The means to overcoming fear and finding confidence How to develop and use creative thinking and dreaming Why making (and getting) the most of your attitudes is critical How to think right towards others The best ways to make "action" a habit How to find victory in defeat Goals for growth, and How to think like a leader "Believe Big," says Schwartz. "The size of your success is determined by the size of your belief. Think little goals and expect little achievements. Think big goals and win big success. Remember this, too! Big ideas and big plans are often easier -- certainly no more difficult - than small ideas and small plans."

Machine Learning with TensorFlow, Second Edition Mattmann A. Chris 2021-02-02 Updated with new code, new projects, and new chapters, *Machine Learning with TensorFlow, Second Edition* gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Summary Updated with new code, new projects, and new chapters, *Machine Learning with TensorFlow, Second Edition* gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Written by NASA JPL Deputy CTO and Principal Data Scientist Chris Mattmann, all examples are accompanied by downloadable Jupyter Notebooks for a hands-on experience coding TensorFlow with Python. New and revised content expands coverage of core machine learning algorithms, and advancements in neural networks such as VGG-Face facial identification classifiers and deep speech classifiers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Supercharge your data analysis with machine learning! ML algorithms automatically improve as they process data, so results get better over time. You don't have to be a mathematician to use ML: Tools like Google's TensorFlow library help with complex calculations so you can focus on getting the answers you need. About the book *Machine Learning with TensorFlow, Second Edition* is a fully revised guide to building machine learning models using Python and TensorFlow. You'll apply core ML concepts to real-world challenges, such as sentiment analysis, text

classification, and image recognition. Hands-on examples illustrate neural network techniques for deep speech processing, facial identification, and auto-encoding with CIFAR-10. What's inside Machine Learning with TensorFlow Choosing the best ML approaches Visualizing algorithms with TensorBoard Sharing results with collaborators Running models in Docker About the reader Requires intermediate Python skills and knowledge of general algebraic concepts like vectors and matrices. Examples use the super-stable 1.15.x branch of TensorFlow and TensorFlow 2.x. About the author Chris Mattmann is the Division Manager of the Artificial Intelligence, Analytics, and Innovation Organization at NASA Jet Propulsion Lab. The first edition of this book was written by Nishant Shukla with Kenneth Fricklas. Table of Contents PART 1 - YOUR MACHINE-LEARNING RIG 1 A machine-learning odyssey 2 TensorFlow essentials PART 2 - CORE LEARNING ALGORITHMS 3 Linear regression and beyond 4 Using regression for call-center volume prediction 5 A gentle introduction to classification 6 Sentiment classification: Large movie-review dataset 7 Automatically clustering data 8 Inferring user activity from Android accelerometer data 9 Hidden Markov models 10 Part-of-speech tagging and word-sense disambiguation PART 3 - THE NEURAL NETWORK PARADIGM 11 A peek into autoencoders 12 Applying autoencoders: The CIFAR-10 image dataset 13 Reinforcement learning 14 Convolutional neural networks 15 Building a real-world CNN: VGG-Face ad VGG-Face Lite 16 Recurrent neural networks 17 LSTMs and automatic speech recognition 18 Sequence-to-sequence models for chatbots 19 Utility landscape

Professional C++ Nicholas A. Solter 2005-01-07 Geared to experienced C++ developers who may not be familiar with the more advanced features of the language, and therefore are not using it to its full capabilities Teaches programmers how to think in C++-that is, how to design effective solutions that maximize the power of the language The authors drill down into this notoriously complex language, explaining poorly understood elements of the C++ feature set as well as common pitfalls to avoid Contains several in-depth case studies with working code that's been tested on Windows, Linux, and Solaris platforms

Parallel and High Performance Computing Robert Robey 2021-08-24 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

Mastering Git Jakub Narebski 2016-04-21 Attain expert-level proficiency with Git for enhanced productivity and efficient collaboration by mastering advanced distributed version control features About This Book Set up Git for solo and collaborative development Harness the full power of Git version control system to customize Git behavior, manipulate history, integrate external tools and explore platform shortcuts A detailed guide, which explains how to apply advanced Git techniques and workflows and ways to handle submodules Who This Book Is For If you are a Git user with reasonable knowledge of Git and familiarity with basic concepts such as branching, merging, staging, and workflows, this is the book for you. Basic knowledge of installing Git and software configuration management concepts is essential. What You Will Learn Explore project history, find revisions using different criteria, and filter and format how history looks Manage your working directory and staging area for commits and interactively create new revisions and amend them Set up repositories and branches for collaboration Submit your own contributions and integrate contributions from other developers via merging or rebasing Customize Git behavior system-wide, on a per-user, per-repository, and per-file basis Take up the administration and set up of Git repositories, configure access, find and recover from repository errors, and perform repository maintenance Chose a workflow and configure and set up support for the chosen workflow In Detail Git is one of the most popular types of Source Code Management (SCM) and Distributed Version Control System (DVCS). Despite the powerful and versatile nature of the tool enveloping strong support for nonlinear development and the ability to handle large projects efficiently, it is a complex tool and often regarded as “user-unfriendly”. Getting to know the ideas and concepts behind the architecture of Git will help you make full use of its power and understand its behavior. Learning the best practices and recommended workflows should help you to avoid problems and ensure trouble-free development. The book scope is meticulously designed to help you gain deeper insights into Git's architecture, its underlying concepts, behavior, and best practices. Mastering Git starts with a quick implementation example of using Git for a collaborative development of a sample project to establish the foundation knowledge of Git operational tasks and concepts. Furthermore, as you progress through the book, the tutorials provide detailed descriptions of various areas of usage: from archaeology, through managing your own work, to working with other developers. This book also helps augment your understanding to examine and explore project history, create and manage your contributions, set up repositories and branches for collaboration in centralized and distributed version control,

integrate work from other developers, customize and extend Git, and recover from repository errors. By exploring advanced Git practices, you will attain a deeper understanding of Git's behavior, allowing you to customize and extend existing recipes and write your own. Style and approach Step-by-step instructions and useful information make this book the ultimate guide to understanding and mastering Git. This book will show road to mastery example by example, while explaining mental model of Git. The Introduction section covers the 'Essentials' just for refreshing the basics. The main highlight is that the concepts are based on HOW the technology/framework works and not just practical 'WHAT to do'.

C++ Cookbook D. Ryan Stephens 2006 "Solutions and examples for C++ programmers"--Cover.

Fluent Python Luciano Ramalho 2015-07-30 Python's simplicity lets you become productive quickly, but this often means you aren't using everything it has to offer. With this hands-on guide, you'll learn how to write effective, idiomatic Python code by leveraging its best—and possibly most neglected—features. Author Luciano Ramalho takes you through Python's core language features and libraries, and shows you how to make your code shorter, faster, and more readable at the same time. Many experienced programmers try to bend Python to fit patterns they learned from other languages, and never discover Python features outside of their experience. With this book, those Python programmers will thoroughly learn how to become proficient in Python 3. This book covers: Python data model: understand how special methods are the key to the consistent behavior of objects Data structures: take full advantage of built-in types, and understand the text vs bytes duality in the Unicode age Functions as objects: view Python functions as first-class objects, and understand how this affects popular design patterns Object-oriented idioms: build classes by learning about references, mutability, interfaces, operator overloading, and multiple inheritance Control flow: leverage context managers, generators, coroutines, and concurrency with the concurrent.futures and asyncio packages Metaprogramming: understand how properties, attribute descriptors, class decorators, and metaclasses work

User Stories Applied Mike Cohn 2004-03-01 Thoroughly reviewed and eagerly anticipated by the agile community, User Stories Applied offers a requirements process that saves time, eliminates rework, and leads directly to better software. The best way to build software that meets users' needs is to begin with "user stories": simple, clear, brief descriptions of functionality that will be valuable to real users. In User Stories Applied, Mike Cohn provides you with a front-to-back blueprint for writing these user stories and weaving them into your development lifecycle. You'll learn what makes a great user story, and what makes a bad one. You'll discover practical ways to gather user stories, even when you can't speak with your users. Then, once you've compiled your user stories, Cohn shows how to organize them, prioritize them, and use them for planning, management, and testing. User role modeling: understanding what users have in common, and where they differ Gathering stories: user interviewing, questionnaires, observation, and workshops Working with managers, trainers, salespeople and other "proxies" Writing user stories for acceptance testing Using stories to prioritize, set schedules, and estimate release costs Includes end-of-chapter practice questions and exercises User Stories Applied will be invaluable to every software developer, tester, analyst, and manager working with any agile method: XP, Scrum... or even your own home-grown approach.

Pro Git Scott Chacon 2014-11-18 Pro Git (Second Edition) is your fully-updated guide to Git and its usage in the modern world. Git has come a long way since it was first developed by Linus Torvalds for Linux kernel development. It has taken the open source world by storm since its inception in 2005, and this book teaches you how to use it like a pro. Effective and well-implemented version control is a necessity for successful web projects, whether large or small. With this book you'll learn how to master the world of distributed version workflow, use the distributed features of Git to the full, and extend Git to meet your every need. Written by Git pros Scott Chacon and Ben Straub, Pro Git (Second Edition) builds on the hugely successful first edition, and is now fully updated for Git version 2.0, as well as including an indispensable chapter on GitHub. It's the best book for all your Git needs.

Practical Machine Learning with Python Dipanjan Sarkar 2017-12-20 Master the essential skills needed to recognize and solve complex problems with machine learning and deep learning. Using real-world examples that leverage the popular Python machine learning ecosystem, this book is your perfect companion for learning the art and science of machine learning to become a successful practitioner. The concepts, techniques, tools, frameworks, and methodologies used in this book will teach you how to think, design, build, and execute machine learning systems and projects successfully. Practical Machine Learning with Python follows a structured and comprehensive three-tiered approach packed with hands-on examples and code. Part 1 focuses on understanding machine learning concepts and tools. This includes machine learning basics with a broad overview of algorithms, techniques, concepts and applications, followed by a tour of the entire Python machine learning ecosystem. Brief guides for useful machine learning tools, libraries and frameworks are also covered. Part 2 details standard machine learning pipelines, with an emphasis on data processing analysis, feature engineering, and modeling. You will learn how to process, wrangle, summarize and visualize data in its various forms. Feature engineering and selection methodologies will be covered in detail with real-world datasets followed by model building, tuning, interpretation and deployment. Part 3 explores multiple real-world case studies spanning diverse domains and industries like retail, transportation, movies, music, marketing, computer vision and finance. For each case study, you will learn the application of various machine learning techniques and methods. The hands-on examples will help you become familiar with state-of-the-art machine learning tools and techniques and understand what algorithms are best suited for any problem. Practical Machine Learning with Python will empower you to start solving your own problems with machine learning today! What You'll Learn Execute end-to-end machine learning projects and systems Implement hands-on examples with industry standard, open source, robust machine learning tools and frameworks Review case studies depicting applications of machine learning and deep learning on diverse domains and industries Apply a wide range of machine learning models including regression, classification, and clustering. Understand and apply the latest models and methodologies from deep learning including CNNs, RNNs, LSTMs and transfer learning. Who This Book Is For IT professionals, analysts, developers, data scientists, engineers, graduate students

Scala for the Impatient Cay S. Horstmann 2012-03-08 Scala is a modern programming language for the Java Virtual Machine (JVM) that combines the best features of object-oriented and functional programming languages. Using Scala, you can write programs more concisely than in Java, as well as leverage the full power

of concurrency. Since Scala runs on the JVM, it can access any Java library and is interoperable with Java frameworks. *Scala for the Impatient* concisely shows developers what Scala can do and how to do it. In this book, Cay Horstmann, the principal author of the international best-selling *Core Java™*, offers a rapid, code-based introduction that's completely practical. Horstmann introduces Scala concepts and techniques in “blog-sized” chunks that you can quickly master and apply. Hands-on activities guide you through well-defined stages of competency, from basic to expert. Coverage includes Getting started quickly with Scala's interpreter, syntax, tools, and unique idioms Mastering core language features: functions, arrays, maps, tuples, packages, imports, exception handling, and more Becoming familiar with object-oriented programming in Scala: classes, inheritance, and traits Using Scala for real-world programming tasks: working with files, regular expressions, and XML Working with higher-order functions and the powerful Scala collections library Leveraging Scala's powerful pattern matching and case classes Creating concurrent programs with Scala actors Implementing domain-specific languages Understanding the Scala type system Applying advanced “power tools” such as annotations, implicits, and delimited continuations Scala is rapidly reaching a tipping point that will reshape the experience of programming. This book will help object-oriented programmers build on their existing skills, allowing them to immediately construct useful applications as they gradually master advanced programming techniques.

The Site Reliability Workbook Betsy Beyer 2018-07-25 In 2016, Google's Site Reliability Engineering book ignited an industry discussion on what it means to run production services today—and why reliability considerations are fundamental to service design. Now, Google engineers who worked on that bestseller introduce *The Site Reliability Workbook*, a hands-on companion that uses concrete examples to show you how to put SRE principles and practices to work in your environment. This new workbook not only combines practical examples from Google's experiences, but also provides case studies from Google's Cloud Platform customers who underwent this journey. Evernote, The Home Depot, The New York Times, and other companies outline hard-won experiences of what worked for them and what didn't. Dive into this workbook and learn how to flesh out your own SRE practice, no matter what size your company is. You'll learn: How to run reliable services in environments you don't completely control—like cloud Practical applications of how to create, monitor, and run your services via Service Level Objectives How to convert existing ops teams to SRE—including how to dig out of operational overload Methods for starting SRE from either greenfield or brownfield

Mastering TypeScript Nathan Rozentals 2021-04-23 This book is a guide to the TypeScript language, from basic concepts to advanced features, and will get you up and running quickly. You'll learn TypeScript programming in depth as you use popular application frameworks and utilize modern design patterns and architectural patterns to build modular, testable and enterprise-ready applications.

Mastering CryENGINE Sascha Gundlach 2014-04-11 A comprehensive guide that covers advanced tasks performed with the CryENGINE system using interesting examples and illustrations demonstrating each of its features. This book is designed for developers who already have a basic understanding of CryENGINE and who want to take their skills to the next level. Whether you are a hobbyist developer or you are working on

an AAA project, Mastering CryENGINE will help you enhance your CryENGINE proficiency.

Redux in Action Marc Garreau 2018-05-11 Summary With Redux in Action, you'll discover how to integrate Redux into your React application and development environment. With the insights you glean from the experience of authors Marc Garreau and Will Faurot, you'll be more than confident in your ability to solve your state management woes with Redux and focus on developing the apps you need! Foreword by Mark Erikson, Redux co-maintainer. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology With Redux, you manage the state of a web application in a single, simple object, practically eliminating most state-related bugs. Centralizing state with Redux makes it possible to quickly start saved user sessions, maintain a reliable state history, and smoothly transfer state between UIs. Plus, the Redux state container is fully programmable and integrates cleanly with React and other popular frameworks. About the Book Redux in Action is an accessible guide to effectively managing state in web applications. Built around common use cases, this practical book starts with a simple task-management application built in React. You'll use the app to learn the Redux workflow, handle asynchronous actions, and get your hands on the Redux developer tools. With each step, you'll discover more about Redux and the benefits of centralized state management. The book progresses to more-complex examples, including writing middleware for analytics, time travel debugging, and an overview of how Redux works with other frameworks such as Angular and Electron. What's Inside Using Redux in an existing React application Handling side effects with the redux-saga library Consuming APIs with asynchronous actions Unit testing a React and Redux application About the Reader For web developers comfortable with JavaScript and React. About the Author Marc Garreau has architected and executed half a dozen unique client-side applications using Redux. Will Faurot is a mentor for Redux developers of all skill levels. Table of Contents Introducing Redux Your first Redux application Debugging Redux applications Consuming an API Middleware Handling complex side effects Preparing data for components Structuring a Redux store Testing Redux applications Performance Structuring Redux code Redux beyond React

Mastering Python Rick van Hattem 2016-04-29 Master the art of writing beautiful and powerful Python by using all of the features that Python 3.5 offers About This Book Become familiar with the most important and advanced parts of the Python code style Learn the trickier aspects of Python and put it in a structured context for deeper understanding of the language Offers an expert's-eye overview of how these advanced tasks fit together in Python as a whole along with practical examples Who This Book Is For Almost anyone can learn to write working script and create high quality code but they might lack a structured understanding of what it means to be 'Pythonic'. If you are a Python programmer who wants to code efficiently by getting the syntax and usage of a few intricate Python techniques exactly right, this book is for you. What You Will Learn Create a virtualenv and start a new project Understand how and when to use the functional programming paradigm Get familiar with the different ways the decorators can be written in Understand the power of generators and coroutines without digressing into lambda calculus Create metaclasses and how it makes working with Python far easier Generate HTML documentation out of documents and code using Sphinx Learn how to track and optimize application performance, both memory and cpu Use the multiprocessing library, not just locally but also across multiple machines Get a basic understanding of packaging and creating

your own libraries/applications In Detail Python is a dynamic programming language. It is known for its high readability and hence it is often the first language learned by new programmers. Python being multi-paradigm, it can be used to achieve the same thing in different ways and it is compatible across different platforms. Even if you find writing Python code easy, writing code that is efficient, easy to maintain, and reuse is not so straightforward. This book is an authoritative guide that will help you learn new advanced methods in a clear and contextualised way. It starts off by creating a project-specific environment using venv, introducing you to different Pythonic syntax and common pitfalls before moving on to cover the functional features in Python. It covers how to create different decorators, generators, and metaclasses. It also introduces you to functools.wraps and coroutines and how they work. Later on you will learn to use asyncio module for asynchronous clients and servers. You will also get familiar with different testing systems such as py.test, doctest, and unittest, and debugging tools such as Python debugger and faulthandler. You will learn to optimize application performance so that it works efficiently across multiple machines and Python versions. Finally, it will teach you how to access C functions with a simple Python call. By the end of the book, you will be able to write more advanced scripts and take on bigger challenges. Style and Approach This book is a comprehensive guide that covers advanced features of the Python language, and communicate them with an authoritative understanding of the underlying rationale for how, when, and why to use them.

Advanced Bash Scripting Guide Mendel Cooper

Mastering PostgreSQL 13 Hans-Jürgen Schönig 2020-11-13 Explore expert techniques such as advanced indexing and high availability to build scalable, reliable, and fault-tolerant database applications using PostgreSQL 13 Key Features Master advanced PostgreSQL 13 concepts with the help of real-world datasets and examples Leverage PostgreSQL's indexing features to fine-tune the performance of your queries Extend PostgreSQL's functionalities to suit your organization's needs with minimal effort Book Description Thanks to its reliability, robustness, and high performance, PostgreSQL has become one of the most advanced open source databases on the market. This updated fourth edition will help you understand PostgreSQL administration and how to build dynamic database solutions for enterprise apps with the latest release of PostgreSQL, including designing both physical and technical aspects of the system architecture with ease. Starting with an introduction to the new features in PostgreSQL 13, this book will guide you in building efficient and fault-tolerant PostgreSQL apps. You'll explore advanced PostgreSQL features, such as logical replication, database clusters, performance tuning, advanced indexing, monitoring, and user management, to manage and maintain your database. You'll then work with the PostgreSQL optimizer, configure PostgreSQL for high speed, and move from Oracle to PostgreSQL. The book also covers transactions, locking, and indexes, and shows you how to improve performance with query optimization. You'll also focus on how to manage network security and work with backups and replication while exploring useful PostgreSQL extensions that optimize the performance of large databases. By the end of this PostgreSQL book, you'll be able to get the most out of your database by executing advanced administrative tasks. What you will learn Get well versed with advanced SQL functions in PostgreSQL 13 Get to grips with administrative tasks such as log file management and monitoring Work with stored procedures and manage backup and recovery Employ replication and failover techniques to reduce data loss Perform database migration from Oracle to PostgreSQL with ease Replicate

PostgreSQL database systems to create backups and scale your database Manage and improve server security to protect your data Troubleshoot your PostgreSQL instance to find solutions to common and not-so-common problems Who this book is for This database administration book is for PostgreSQL developers and database administrators and professionals who want to implement advanced functionalities and master complex administrative tasks with PostgreSQL 13. Prior experience in PostgreSQL and familiarity with the basics of database administration will assist with understanding key concepts covered in the book.

Learning Web Design Jennifer Robbins 2018-05-11 Do you want to build web pages but have no prior experience? This friendly guide is the perfect place to start. You'll begin at square one, learning how the web and web pages work, and then steadily build from there. By the end of the book, you'll have the skills to create a simple site with multicolumn pages that adapt for mobile devices. Each chapter provides exercises to help you learn various techniques and short quizzes to make sure you understand key concepts. This thoroughly revised edition is ideal for students and professionals of all backgrounds and skill levels. It is simple and clear enough for beginners, yet thorough enough to be a useful reference for experienced developers keeping their skills up to date. Build HTML pages with text, links, images, tables, and forms Use style sheets (CSS) for colors, backgrounds, formatting text, page layout, and even simple animation effects Learn how JavaScript works and why the language is so important in web design Create and optimize web images so they'll download as quickly as possible NEW! Use CSS Flexbox and Grid for sophisticated and flexible page layout NEW! Learn the ins and outs of Responsive Web Design to make web pages look great on all devices NEW! Become familiar with the command line, Git, and other tools in the modern web developer's toolkit NEW! Get to know the super-powers of SVG graphics

Mastering Text Mining with R Ashish Kumar 2016-12-28 Master text-taming techniques and build effective text-processing applications with R About This Book Develop all the relevant skills for building text-mining apps with R with this easy-to-follow guide Gain in-depth understanding of the text mining process with lucid implementation in the R language Example-rich guide that lets you gain high-quality information from text data Who This Book Is For If you are an R programmer, analyst, or data scientist who wants to gain experience in performing text data mining and analytics with R, then this book is for you. Exposure to working with statistical methods and language processing would be helpful. What You Will Learn Get acquainted with some of the highly efficient R packages such as OpenNLP and RWeka to perform various steps in the text mining process Access and manipulate data from different sources such as JSON and HTTP Process text using regular expressions Get to know the different approaches of tagging texts, such as POS tagging, to get started with text analysis Explore different dimensionality reduction techniques, such as Principal Component Analysis (PCA), and understand its implementation in R Discover the underlying themes or topics that are present in an unstructured collection of documents, using common topic models such as Latent Dirichlet Allocation (LDA) Build a baseline sentence completing application Perform entity extraction and named entity recognition using R In Detail Text Mining (or text data mining or text analytics) is the process of extracting useful and high-quality information from text by devising patterns and trends. R provides an extensive ecosystem to mine text through its many frameworks and packages. Starting with basic information about the statistics concepts used in text mining, this book will teach you how to access, cleanse,

and process text using the R language and will equip you with the tools and the associated knowledge about different tagging, chunking, and entailment approaches and their usage in natural language processing. Moving on, this book will teach you different dimensionality reduction techniques and their implementation in R. Next, we will cover pattern recognition in text data utilizing classification mechanisms, perform entity recognition, and develop an ontology learning framework. By the end of the book, you will develop a practical application from the concepts learned, and will understand how text mining can be leveraged to analyze the massively available data on social media. Style and approach This book takes a hands-on, example-driven approach to the text mining process with lucid implementation in R.