

[Books] Autotools A Practitioners Guide To Gnu Autoconf Automake And Libtool John Calcote 2010 07 23

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Autotools-John Calcote 2010 The GNU Autotools make it easy for developers to create software that is portable across many UNIX-like operating systems. Thousands of open source software packages use the Autotools, but the learning curve is unfortunately steep, and it can be difficult for a beginner to find anything more than basic reference material on using the powerful software suite. InAutotools, author John Calcote begins with an overview of high-level concepts; then tackles more advanced topics, like using the M4 macro processor with Autoconf, extending the Automake framework, and building Java and C# sources. You'll learn how to: Master the Autotools build system to maximize your software's portability Generate Autoconf configuration scripts to simplify the compilation process Produce portable makefiles with Automake Build cross-platform software libraries with Libtool Write your own Autoconf macros Autotoolsalso includes a variety of complete projects that you're encouraged to work through to gain a real-world sense of how to become an Autotools practitioner. For example, you'll turn the FLAIM and Jupiter projects' hand-coded, makefile-based build systems into a powerful Autotools-based build system.

Autotools, 2nd Edition-John Calcote 2019-11-05 The long awaited update to the practitioner's guide to GNU Autoconf, Automake, and Libtool The GNU Autotools make it easy for developers to create software that is portable across many Unix-like operating systems, and even Windows. Although the

Autotools are used by thousands of open source software packages, they have a notoriously steep learning curve. Autotools is the first book to offer programmers a tutorial-based guide to the GNU build system. Author John Calcote begins with an overview of high-level concepts and a hands-on tour of the philosophy and design of the Autotools. He then tackles more advanced details, like using the M4 macro processor with Autoconf, extending the framework provided by Automake, and building Java and C# sources. He concludes with solutions to frequent problems encountered by Autotools users. This thoroughly revised second edition has been updated to cover the latest versions of the Autotools. It includes five new chapters on topics like pkg-config, unit and integration testing with Autotest, internationalizing with GNU tools, the portability of gnumlib, and using the Autotools with Windows. As with the first edition, you'll focus on two projects: Jupiter, a simple "Hello, world!" program, and FLAIM, an existing, complex open source effort containing four separate but interdependent projects. Follow along as the author takes Jupiter's build system from a basic makefile to a full-fledged Autotools project, and then as he converts the FLAIM projects from complex, hand-coded makefiles to the powerful and flexible GNU build system. Learn how to:

- Master the Autotools build system to maximize your software's portability
- Generate Autoconf configuration scripts to simplify the compilation process
- Produce portable makefiles with Automake
- Build cross-platform software libraries with

Libtool • Write your own Autoconf macros This detailed introduction to the GNU Autotools is indispensable for developers and programmers looking to gain a deeper understanding of this complex suite of tools. Stop fighting against the system and make sense of it all with the second edition of Autotools!

GNU Autoconf, Automake, and Libtool-Gary V. Vaughan 2000 If you are a developer and are looking to participate in the Open Source development growth area you will need to learn new Open Source tools. GNU autoconf, GNU automake and GNU libtool are key tools for Open Source application development. These tools are not easy to learn, so some of the leading authorities on these tools have agreed to work together on this book to teach developers how to boost their productivity and the portability of their application. This book place New Riders/MTP at the center of the Open Source development community. Autoconf, Automake and Libtool is an efficient discourse on the use of autoconf, automake and libtool aimed at reducing the steep learning curve normally associated with these tools. This is a study guide to the interactions between the tools, and how best to get them to cooperate. If you are a developer and have no GNU build environment expertise, this book will help you develop these tools completely and confidently.

The Book of Inkscape-Dmitry Kirsanov 2009 Inkscape is a powerful, free, cross-platform, vector-based drawing tool similar to Adobe Illustrator and CorelDRAW. The Book of Inkscape, written by Inkscape developer and graphic designer Dmitry Kirsanov, is an in-depth guide to Inkscape, offering comprehensive coverage and creative advice on Inkscape's many capabilities. Kirsanov draws on his experience using Inkscape for design and illustration as well as his extensive knowledge of Inkscape's features, several of which he developed. Following an overview of vector-based graphics in general and SVG in particular, Kirsanov takes the reader from basic techniques-selecting, transforming, styling-to more advanced topics such as gradients and patterns, path editing, artistic drawing, clones and patterns, working with text, exporting bitmaps, and using extensions. The Book of Inkscape is a complete guide to Inkscape for every artist, whether amateur or professional.

Nine Algorithms That Changed the Future-John MacCormick 2020-09-15 Nine revolutionary algorithms that power our computers and smartphones Every day, we use our computers to perform remarkable feats. A simple web search picks out a handful of relevant needles from the world's biggest

haystack. Uploading a photo to Facebook transmits millions of pieces of information over numerous error-prone network links, yet somehow a perfect copy of the photo arrives intact. Without even knowing it, we use public-key cryptography to transmit secret information like credit card numbers, and we use digital signatures to verify the identity of the websites we visit. How do our computers perform these tasks with such ease? John MacCormick answers this question in language anyone can understand, using vivid examples to explain the fundamental tricks behind nine computer algorithms that power our PCs, tablets, and smartphones. Practical Malware Analysis-Michael Sikorski 2012 Introduces tools and techniques for analyzing and debugging malicious software, discussing how to set up a safe virtual environment, overcome malware tricks, and use five of the most popular packers.

Zen at War-Brian Daizen Victoria 2006-06-22 A compelling history of the contradictory, often militaristic, role of Zen Buddhism, this book meticulously documents the close and previously unknown support of a supposedly peaceful religion for Japanese militarism throughout World War II. Drawing on the writings and speeches of leading Zen masters and scholars, Brian Victoria shows that Zen served as a powerful foundation for the fanatical and suicidal spirit displayed by the imperial Japanese military. At the same time, the author recounts the dramatic and tragic stories of the handful of Buddhist organizations and individuals that dared to oppose Japan's march to war. He follows this history up through recent apologies by several Zen sects for their support of the war and the way support for militarism was transformed into 'corporate Zen' in postwar Japan. The second edition includes a substantive new chapter on the roots of Zen militarism and an epilogue that explores the potentially volatile mix of religion and war. With the increasing interest in Buddhism in the West, this book is as timely as it is certain to be controversial.

Learn C the Hard Way-Zed A. Shaw 2015-08-10 You Will Learn C! Zed Shaw has crafted the perfect course for the beginning C programmer eager to advance their skills in any language. Follow it and you will learn the many skills early and junior programmers need to succeed-just like the hundreds of thousands of programmers Zed has taught to date! You bring discipline, commitment, persistence, and experience with any programming language; the author supplies everything else. In Learn C the Hard Way , you'll learn C by working through 52 brilliantly crafted exercises. Watch Zed Shaw's teaching video and read the exercise. Type his code precisely. (No copying

and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn what good, modern C programs look like; how to think more effectively about code; and how to find and fix mistakes far more efficiently. Most importantly, you'll master rigorous defensive programming techniques, so you can use any language to create software that protects itself from malicious activity and defects. Through practical projects you'll apply what you learn to build confidence in your new skills. Shaw teaches the key skills you need to start writing excellent C software, including Setting up a C environment Basic syntax and idioms Compilation, make files, and linkers Operators, variables, and data types Program control Arrays and strings Functions, pointers, and structs Memory allocation I/O and files Libraries Data structures, including linked lists, sort, and search Stacks and queues Debugging, defensive coding, and automated testing Fixing stack overflows, illegal memory access, and more Breaking and hacking your own C code It'll Be Hard at First. But Soon, You'll Just Get It-And That Will Feel Great! This tutorial will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful programming languages. You'll be a C programmer.

The GNU Make Book-John Graham-Cumming 2015 "Covers GNU Make basics through advanced topics, including: user-defined functions, macros, and path handling; creating makefile assertions and debugging makefiles; parallelization; automatic dependency generation, rebuilding targets, and non-recursive Make; and using the GNU Make Standard Library"-- Embedded Android-Karim Yaghmour 2013-03-15 Embedded Android is for Developers wanting to create embedded systems based on Android and for those wanting to port Android to new hardware, or creating a custom development environment. Hackers and moders will also find this an indispensable guide to how Android works.

Introduction To Financial Modelling-Liam Bastick 2020-04-01 If you have had little formal training in developing financial forecasts in Excel or have ever burnt the midnight oil trying to get a Balance Sheet to balance, then this book is for you. A simple walkthrough of the common perils and pitfalls of financial modelling, this book constructs a solid foundation to build upon (pun most definitely intended). Taking little for granted, Liam examines the common Excel functions and functionalities necessary, emphasises the importance of a standardised and functional layout, explains accounting concepts simply and reinforces the four key concepts of a "Best Practice" model: Consistency, Robustness, Flexibility and Transparency &- Craft.

With over 50 examples and an extended case study that creates a simple financial model from scratch to highlight the key concepts, this is a "hands on" book, focused on working with Excel more efficiently and effectively. A simple process, this methodology has been adopted by many seasoned professionals without resorting to balancing figures, circulars and macros. Map Scripting 101-Adam DuVander 2010 "Websites like MapQuest and Google Maps have transformed the way we think about maps. But these services do more than offer driving directions, they provide APIs that web developers can use to build highly customized map-based applications. The author, Adam DuVander, delivers 73 useful scripts, examples that will show you how to create interactive maps and mashups."--[book cover]

8-Bit Apocalypse-Alex Rubens 2019-09-10 Before Call of Duty, before World of Warcraft, before even Super Mario Bros., the video game industry exploded in the late 1970s with the advent of the video arcade. Leading the charge was Atari Inc., the creator of, among others, the iconic game Missile Command. The first game to double as a commentary on culture, Missile Command put the players' fingers on "the button," making them responsible for the fate of civilization in a no-win scenario, all for the price of a quarter. The game was marvel of modern culture, helping usher in both the age of the video game and the video game lifestyle. Its groundbreaking implications inspired a fanatical culture that persists to this day. As fascinating as the cultural reaction to Missile Command were the programmers behind it. Before the era of massive development teams and worship of figures like Steve Jobs, Atari was manufacturing arcade machines designed, written, and coded by individual designers. As earnings from their games entered the millions, these creators were celebrated as geniuses in their time; once dismissed as nerds and fanatics, they were now being interviewed for major publications, and partied like Wall Street traders. However, the toll on these programmers was high: developers worked 120-hour weeks, often opting to stay in the office for days on end while under a deadline. Missile Command creator David Theurer threw himself particularly fervently into his work, prompting not only declining health and a suffering relationship with his family, but frequent nightmares about nuclear annihilation. To truly tell the story from the inside, tech insider and writer Alex Rubens has interviewed numerous major figures from this time: Nolan Bushnell, founder of Atari; David Theurer, the creator of Missile Command; and Phil Klemmer, writer for the NBC series Chuck, who wrote an entire episode for the show about Missile Command and its

mythical “kill screen.” Taking readers back to the days of TaB cola, dot matrix printers, and digging through the couch for just one more quarter, Alex Rubens combines his knowledge of the tech industry and experience as a gaming journalist to conjure the wild silicon frontier of the 8-bit '80s. *8-Bit Apocalypse: The Untold Story of Atari's Missile Command* offers the first in-depth, personal history of an era for which fans have a lot of nostalgia.

Introduction to Modern Fortran for the Earth System Sciences-Dragos B. Chirila 2014-11-27 This work provides a short "getting started" guide to Fortran 90/95. The main target audience consists of newcomers to the field of numerical computation within Earth system sciences (students, researchers or scientific programmers). Furthermore, readers accustomed to other programming languages may also benefit from this work, by discovering how some programming techniques they are familiar with map to Fortran 95. The main goal is to enable readers to quickly start using Fortran 95 for writing useful programs. It also introduces a gradual discussion of Input/Output facilities relevant for Earth system sciences, from the simplest ones to the more advanced netCDF library (which has become a de facto standard for handling the massive datasets used within Earth system sciences). While related works already treat these disciplines separately (each often providing much more information than needed by the beginning practitioner), the reader finds in this book a shorter guide which links them. Compared to other books, this work provides a much more compact view of the language, while also placing the language-elements in a more applied setting, by providing examples related to numerical computing and more advanced Input/Output facilities for Earth system sciences. Naturally, the coverage of the programming language is relatively shallow, since many details are skipped. However, many of these details can be learned gradually by the practitioner, after getting an overview and some practice with the language through this book.

The Artist's Guide to GIMP-Michael J. Hammel 2012-06-12 As a full-featured, free alternative to Adobe Photoshop, GIMP is one of the world's most popular open source projects. The latest version of GIMP (2.8) brings long-awaited improvements and powerful new tools to make graphic design and photo manipulation even easier—but it's still a notoriously challenging program to use. *The Artist's Guide to GIMP* teaches you how to use GIMP without a tedious list of menu paths and options. Instead, as you follow along with Michael J. Hammel's step-by-step instructions, you'll learn to produce professional-looking advertisements, apply impressive

photographic effects, and design cool logos and text effects. These extensively illustrated tutorials are perfect for hands-on learning or as templates for your own artistic experiments. After a crash course in GIMP's core tools like brushes, patterns, selections, layers, modes, and masks, you'll learn: Photographic techniques to clean up blemishes and dust, create sepia-toned antique images, swap colors, produce motion blurs, alter depth of field, simulate a tilt-shift, and fix rips in an old photo Web design techniques to create navigation tabs, icons, fancy buttons, backgrounds, and borders Type effects to create depth, perspective shadows, metallic and distressed text, and neon and graffiti lettering Advertising effects to produce movie posters and package designs; simulate clouds, cracks, cloth, and underwater effects; and create specialized lighting Whether you're new to GIMP or you've been playing with this powerful software for years, you'll be inspired by the original art, creative photo manipulations, and numerous tips for designers. Covers GIMP 2.8

OpenNebula 3 Cloud Computing-Giovanni Toraldo 2012-01-01 This is a step-by-step practical guide to get you started easily with openNebula. It guides you to build, maintain, and configure your cloud infrastructure, providing real-world examples in a simple and coherent manner. If you are a GNU/Linux system administrator with no experience with virtualization or cloud computing but eager to learn about it, or you are thwarted by your current virtualized infrastructure, this book is for you. You are expected to have some basic knowledge of GNU/Linux, with knowledge of basic package management tools and system configuration.

GarageBand For Dummies-Bob LeVitus 2020-07-30 Lay down some tracks—no garage required! GarageBand has become the default musical sketchpad for both well-known artists and hobbyists musicians who want a simple way to record, edit, and share their own tunes. *GarageBand For Dummies* is your go-to guide to navigating the interface and making the tweaks to create your own songs. Look inside to discover how to lay down a beat with the virtual drum kits, layer on sweet sounds with built-in virtual instruments, and attach simple hardware to record vocals or live instruments on a Mac, iPad, or even an iPhone. Use built-in instruments to create a song Attach your guitar or mic to record live sounds Export your final product or individual tracks Add effects and edit your song GarageBand is the simplest way to create basic tracks without investing in costly hardware and learning a complex digital audio workstation software package—and this book shows you how.

The Ghidra Book-Chris Eagle 2020-09-08 A guide to using the Ghidra software reverse engineering tool suite. The result of more than a decade of research and development within the NSA, the Ghidra platform was developed to address some of the agency's most challenging reverse-engineering problems. With the open-source release of this formerly restricted tool suite, one of the world's most capable disassemblers and intuitive decompilers is now in the hands of cybersecurity defenders everywhere -- and The Ghidra Book is the one and only guide you need to master it. In addition to discussing RE techniques useful in analyzing software and malware of all kinds, the book thoroughly introduces Ghidra's components, features, and unique capacity for group collaboration. You'll learn how to:

- Navigate a disassembly
- Use Ghidra's built-in decompiler to expedite analysis
- Analyze obfuscated binaries
- Extend Ghidra to recognize new data types
- Build new Ghidra analyzers and loaders
- Add support for new processors and instruction sets
- Script Ghidra tasks to automate workflows
- Set up and use a collaborative reverse engineering environment

Designed for beginner and advanced users alike, The Ghidra Book will effectively prepare you to meet the needs and challenges of RE, so you can analyze files like a pro.

Embedded Systems Design with Platform FPGAs-Ronald Sass 2010-09-10 Embedded Systems Design with Platform FPGAs introduces professional engineers and students alike to system development using Platform FPGAs. The focus is on embedded systems but it also serves as a general guide to building custom computing systems. The text describes the fundamental technology in terms of hardware, software, and a set of principles to guide the development of Platform FPGA systems. The goal is to show how to systematically and creatively apply these principles to the construction of application-specific embedded system architectures. There is a strong focus on using free and open source software to increase productivity. Each chapter is organized into two parts. The white pages describe concepts, principles, and general knowledge. The gray pages provide a technical rendition of the main issues of the chapter and show the concepts applied in practice. This includes step-by-step details for a specific development board and tool chain so that the reader can carry out the same steps on their own. Rather than try to demonstrate the concepts on a broad set of tools and boards, the text uses a single set of tools (Xilinx Platform Studio, Linux, and GNU) throughout and uses a single developer board (Xilinx ML-510) for the examples. Explains how to use the Platform FPGA to meet complex design

requirements and improve product performance Presents both fundamental concepts together with pragmatic, step-by-step instructions for building a system on a Platform FPGA Includes detailed case studies, extended real-world examples, and lab exercises

Transforming Cities with Transit-Hiroaki Suzuki 2013-01-22 'Transforming Cities with Transit' explores the complex process of transit and land-use integration and provides policy recommendations and implementation strategies for effective integration in rapidly growing cities in developing countries.

Tools and Techniques for High Performance Computing-Guido Juckeland 2020-03-25 This book constitutes the refereed proceedings of 3 workshops co-located with International Conference for High Performance Computing, Networking, Storage, and Analysis, SC19, held in Denver, CO, USA, in November 2019. The 12 full papers presented in this proceedings feature the outcome of the 6th Annual Workshop on HPC User Support Tools, HUST 2019, International Workshop on Software Engineering for HPC-Enabled Research, SE-HER 2019, and Third Workshop on Interactive High-Performance Computing, WIHPC 2019.

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

Kali Linux Revealed-Raphaël Hertzog 2017-06-05 Whether you're a veteran or an absolute n00b, this is the best place to start with Kali Linux, the security professional's platform of choice, and a truly industrial-grade, and world-class operating system distribution-mature, secure, and enterprise-ready.

High Performance Computing for Computational Science - VECPAR 2016- Inês Dutra 2017-07-13 This book constitutes the thoroughly refereed post-conference proceedings of the 12th International Conference on High Performance Computing in Computational Science, VECPAR 2016, held in Porto, Portugal, in June 2016. The 20 full papers presented were carefully reviewed and selected from 36 submissions. The papers are organized in topical sections on applications; performance modeling and analysis; low level support; environments/libraries to support parallelization.

Transport and Climate Change-Tim Ryley 2012-07-17 This topical volume covers the intersection between transport and climate change, with papers from the 'Transport & Climate Change' session of the RGS-IBG conference in London, September 2010. It considers the role of transport modes at varying spatial dimensions and a range of perspectives on the relationship between transport and climate change.

The Active Female-Jacalyn J. McComb 2007-12-26 This book investigates the growing and ever-changing health issues for girls and women who lead an active lifestyle and participate in sports and exercise. Easy to read, the volume provides an educational foundation for understanding how disordered eating, amenorrhea, and osteoporosis can be interrelated while also looking at image disorders and reproductive health. It contains thorough analysis of common prevention and management techniques, and provides useful links to resources on the internet for additional screening tools.

21st Century C-Ben Klemens 2012-10-15 Throw out your old ideas of C, and relearn a programming language that's substantially outgrown its origins. With 21st Century C, you'll discover up-to-date techniques that are absent from every other C text available. C isn't just the foundation of modern programming languages, it is a modern language, ideal for writing efficient, state-of-the-art applications. Learn to dump old habits that made sense on mainframes, and pick up the tools you need to use this evolved and aggressively simple language. No matter what programming language you currently champion, you'll agree that C rocks. Set up a C programming environment with shell facilities, makefiles, text editors, debuggers, and memory checkers Use Autotools, C's de facto cross-platform package manager Learn which older C concepts should be downplayed or deprecated Explore problematic C concepts that are too useful to throw out Solve C's string-building problems with C-standard and POSIX-standard functions Use modern syntactic features for functions that take structured

inputs Build high-level object-based libraries and programs Apply existing C libraries for doing advanced math, talking to Internet servers, and running databases

CMake Cookbook-Radovan Bast 2018-09-26 Learn CMake through a series of task-based recipes that provide you with practical, simple, and ready-to-use CMake solutions for your code Key Features Learn to configure, build, test, and package software written in C, C++, and Fortran Progress from simple to advanced tasks with examples tested on Linux, macOS, and Windows Manage code complexity and library dependencies with reusable CMake building blocks Book Description CMake is cross-platform, open-source software for managing the build process in a portable fashion. This book features a collection of recipes and building blocks with tips and techniques for working with CMake, CTest, CPack, and CDash. CMake Cookbook includes real-world examples in the form of recipes that cover different ways to structure, configure, build, and test small- to large-scale code projects. You will learn to use CMake's command-line tools and master modern CMake practices for configuring, building, and testing binaries and libraries. With this book, you will be able to work with external libraries and structure your own projects in a modular and reusable way. You will be well-equipped to generate native build scripts for Linux, MacOS, and Windows, simplify and refactor projects using CMake, and port projects to CMake. What you will learn Configure, build, test, and install code projects using CMake Detect operating systems, processors, libraries, files, and programs for conditional compilation Increase the portability of your code Refactor a large codebase into modules with the help of CMake Build multi-language projects Know where and how to tweak CMake configuration files written by somebody else Package projects for distribution Port projects to CMake Who this book is for If you are a software developer keen to manage build systems using CMake or would like to understand and modify CMake code written by others, this book is for you. A basic knowledge of C++, C, or Fortran is required to understand the topics covered in this book. Practical Binary Analysis-Dennis Andriess 2018-10-18 Practical Binary Analysis is the first book of its kind to present advanced binary analysis topics in an accessible way. After an introduction on the basics of binary formats, disassembly, and code injection, you'll dive into more complex topics such as binary instrumentation, dynamic taint analysis, and symbolic execution. By the end of the book, you'll be able to build your own binary analysis tools on Linux by following hands-on and practical examples.

Building Embedded Systems-Changyi Gu 2016-05-26 Develop the software and hardware you never think about. We're talking about the nitty-gritty behind the buttons on your microwave, inside your thermostat, inside the keyboard used to type this description, and even running the monitor on which you are reading it now. Such stuff is termed embedded systems, and this book shows how to design and develop embedded systems at a professional level. Because yes, many people quietly make a successful career doing just that. Building embedded systems can be both fun and intimidating. Putting together an embedded system requires skill sets from multiple engineering disciplines, from software and hardware in particular. Building Embedded Systems is a book about helping you do things in the right way from the beginning of your first project: Programmers who know software will learn what they need to know about hardware. Engineers with hardware knowledge likewise will learn about the software side. Whatever your background is, Building Embedded Systems is the perfect book to fill in any knowledge gaps and get you started in a career programming for everyday devices. Author Changyi Gu brings more than fifteen years of experience in working his way up the ladder in the field of embedded systems. He brings knowledge of numerous approaches to embedded systems design, including the System on Programmable Chips (SOPC) approach that is currently growing to dominate the field. His knowledge and experience make Building Embedded Systems an excellent book for anyone wanting to enter the field, or even just to do some embedded programming as a side project. What You Will Learn Program embedded systems at the hardware level Learn current industry practices in firmware development Develop practical knowledge of embedded hardware options Create tight integration between software and hardware Practice a work flow leading to successful outcomes Build from transistor level to the system level Make sound choices between performance and cost Who This Book Is For Embedded-system engineers and intermediate electronics enthusiasts who are seeking tighter integration between software and hardware. Those who favor the System on a Programmable Chip (SOPC) approach will in particular benefit from this book. Students in both Electrical Engineering and Computer Science can also benefit from this book and the real-life industry practice it provides.

PyTorch Computer Vision Cookbook-Michael Avendi 2020-03-20 Discover powerful ways to use deep learning algorithms and solve real-world computer vision problems using Python Key Features Solve the trickiest of

problems in computer vision by combining the power of deep learning and neural networks Leverage PyTorch 1.x capabilities to perform image classification, object detection, and more Train and deploy enterprise-grade, deep learning models for computer vision applications Book Description Computer vision techniques play an integral role in helping developers gain a high-level understanding of digital images and videos. With this book, you'll learn how to solve the trickiest problems in computer vision (CV) using the power of deep learning algorithms, and leverage the latest features of PyTorch 1.x to perform a variety of CV tasks. Starting with a quick overview of the PyTorch library and key deep learning concepts, the book then covers common and not-so-common challenges faced while performing image recognition, image segmentation, object detection, image generation, and other tasks. Next, you'll understand how to implement these tasks using various deep learning architectures such as convolutional neural networks (CNNs), recurrent neural networks (RNNs), long short-term memory (LSTM), and generative adversarial networks (GANs). Using a problem-solution approach, you'll learn how to solve any issue you might face while fine-tuning the performance of a model or integrating it into your application. Later, you'll get to grips with scaling your model to handle larger workloads, and implementing best practices for training models efficiently. By the end of this CV book, you'll be proficient in confidently solving many CV related problems using deep learning and PyTorch. What you will learn Develop, train and deploy deep learning algorithms using PyTorch 1.x Understand how to fine-tune and change hyperparameters to train deep learning algorithms Perform various CV tasks such as classification, detection, and segmentation Implement a neural style transfer network based on CNNs and pre-trained models Generate new images and implement adversarial attacks using GANs Implement video classification models based on RNN, LSTM, and 3D-CNN Discover best practices for training and deploying deep learning algorithms for CV applications Who this book is for Computer vision professionals, data scientists, deep learning engineers, and AI developers looking for quick solutions for various computer vision problems will find this book useful. Intermediate-level knowledge of computer vision concepts, along with Python programming experience is required.

The Linux Command Line-William Shotts 2019 "It's been said that "graphical user interfaces make easy tasks easy, while command-line interfaces make difficult tasks possible." The Linux Command Line shows

readers how to control their computers and accomplish these difficult tasks using Bash, the Linux shell. Designed for command-line users of all levels, the book takes readers from the first keystrokes to the process of writing powerful programs in the command line's native language. Along the way, the author explores basic commands and file system navigation, OS configuration, classic command-line programs, shell programming, and much more, making *The Linux Command Line* an essential guide for all Linux users who wish to exploit the full power of their systems"--

Pyomo - Optimization Modeling in Python-William E. Hart 2012-02-15 This book provides a complete and comprehensive reference/guide to Pyomo (Python Optimization Modeling Objects) for both beginning and advanced modelers, including students at the undergraduate and graduate levels, academic researchers, and practitioners. The text illustrates the breadth of the modeling and analysis capabilities that are supported by the software and support of complex real-world applications. Pyomo is an open source software package for formulating and solving large-scale optimization and operations research problems. The text begins with a tutorial on simple linear and integer programming models. A detailed reference of Pyomo's modeling components is illustrated with extensive examples, including a discussion of how to load data from data sources like spreadsheets and databases. Chapters describing advanced modeling capabilities for nonlinear and stochastic optimization are also included. The Pyomo software provides familiar modeling features within Python, a powerful dynamic programming language that has a very clear, readable syntax and intuitive object orientation. Pyomo includes Python classes for defining sparse sets, parameters, and variables, which can be used to formulate algebraic expressions that define objectives and constraints. Moreover, Pyomo can be used from a command-line interface and within Python's interactive command environment, which makes it easy to create Pyomo models, apply a variety of optimizers, and examine solutions. The software supports a different modeling approach than commercial AML (Algebraic Modeling Languages) tools, and is designed for flexibility, extensibility, portability, and maintainability but also maintains the central ideas in modern AMLs.

Advanced C and C++ Compiling-Milan Stevanovic 2014-04-30 Learning how to write C/C++ code is only the first step. To be a serious programmer, you need to understand the structure and purpose of the binary files produced by the compiler: object files, static libraries, shared libraries, and, of course,

executables. *Advanced C and C++ Compiling* explains the build process in detail and shows how to integrate code from other developers in the form of deployed libraries as well as how to resolve issues and potential mismatches between your own and external code trees. With the proliferation of open source, understanding these issues is increasingly the responsibility of the individual programmer. *Advanced C and C++ Compiling* brings all of the information needed to move from intermediate to expert programmer together in one place -- an engineering guide on the topic of C/C++ binaries to help you get the most accurate and pertinent information in the quickest possible time.

Python Parallel Programming Cookbook-Giancarlo Zaccone 2019-09-06 Implement effective programming techniques in Python to build scalable software that saves time and memory Key Features Design distributed computing systems and massive computational tasks coherently Learn practical recipes with concise explanations that address development pain points encountered while coding parallel programs Understand how to host your parallelized applications on the cloud Book Description Nowadays, it has become extremely important for programmers to understand the link between the software and the parallel nature of their hardware so that their programs run efficiently on computer architectures. Applications based on parallel programming are fast, robust, and easily scalable. This updated edition features cutting-edge techniques for building effective concurrent applications in Python 3.7. The book introduces parallel programming architectures and covers the fundamental recipes for thread-based and process-based parallelism. You'll learn about mutex, semaphores, locks, queues exploiting the threading, and multiprocessing modules, all of which are basic tools to build parallel applications. Recipes on MPI programming will help you to synchronize processes using the fundamental message passing techniques with `mpi4py`. Furthermore, you'll get to grips with asynchronous programming and how to use the power of the GPU with PyCUDA and PyOpenCL frameworks. Finally, you'll explore how to design distributed computing systems with Celery and architect Python apps on the cloud using PythonAnywhere, Docker, and serverless applications. By the end of this book, you will be confident in building concurrent and high-performing applications in Python. What you will learn Synchronize multiple threads and processes to manage parallel tasks Use message passing techniques to establish communication between processes to build parallel applications Program your own GPU cards to address complex problems

Manage computing entities to execute distributed computational task Write efficient programs by adopting the event-driven programming model Explore cloud technology with Django and Google App Engine Apply parallel programming techniques that can lead to performance improvements Who this book is for The Python Parallel Programming Cookbook is for software developers who are well-versed with Python and want to use parallel programming techniques to write powerful and efficient code. This book will help you master the basics and the advanced of parallel computing.

Managing Projects with GNU Make-Robert Mecklenburg 2004-11-19 This updated reference offers a clear description of make, a central engine in many programming projects that simplifies the process of re-linking a program after re-compiling source files. Original. (Intermediate)

Road Safety Performance Review-Gela Kvashilava 2018 Road safety is an important sustainable development goal, yet relatively underappreciated and greatly underfunded. Every year, more than 1.2 million people die and another 50 million are injured in road traffic accidents around the world. Approximately 90% of all road accidents occur in low- and middle-income countries. Recognizing the need to support member States in urgently and effectively addressing road safety challenges, three of the United Nations regional commissions initiated the project Strengthening the National Road Safety Management Capacities of Selected Developing Countries and Countries with Economies in Transition. The project, which focused on assisting four countries to enhance their national road safety management capacities and to effectively address and improve national road safety, was implemented in Albania, Dominican Republic, Georgia and Viet Nam. The Road Safety Performance Reviews were conducted to assess the current road safety situation, to help the beneficiary countries to identify the most critical road safety issues and to recommend actions to be taken. Based on the critical issues identified, capacity-building workshops for national road safety stakeholders were organized. The project raised public awareness on road safety issues and sensitized national experts and the non-government sector to the need to set ambitious road safety targets and take specific measures to improve road safety.

Digital Forensics with Open Source Tools-Cory Altheide 2011-03-29 Digital Forensics with Open Source Tools is the definitive book on investigating and analyzing computer systems and media using open source tools. The book is a technical procedural guide, and explains the use of open source tools on Mac, Linux and Windows systems as a platform for performing computer

forensics. Both well-known and novel forensic methods are demonstrated using command-line and graphical open source computer forensic tools for examining a wide range of target systems and artifacts. Written by world-renowned forensic practitioners, this book uses the most current examination and analysis techniques in the field. It consists of 9 chapters that cover a range of topics such as the open source examination platform; disk and file system analysis; Windows systems and artifacts; Linux systems and artifacts; Mac OS X systems and artifacts; Internet artifacts; and automating analysis and extending capabilities. The book lends itself to use by students and those entering the field who do not have means to purchase new tools for different investigations. This book will appeal to forensic practitioners from areas including incident response teams and computer forensic investigators; forensic technicians from legal, audit, and consulting firms; and law enforcement agencies. Written by world-renowned forensic practitioners Details core concepts and techniques of forensic file system analysis Covers analysis of artifacts from the Windows, Mac, and Linux operating systems

The Xingyi Boxing Manual, Revised and Expanded Edition-Jin Yunting 2015-02-10 Famed for promoting health and longevity, as well as for its effectiveness as a fighting art, Xingyi is practiced by enthusiasts in China and in the West. Designed as a primer or introductory reader and filled with photos, illustrations, and descriptive text, this authentic manual introduces the Five Elements of Xingyi—Splitting Fist, Drilling Fist, Smashing Fist, Pounding Fist, and Crossing Fist—outlining the basic theory and history of the art. Coming directly from an eighth-generation practitioner of a famous lineage, The Xingyi Boxing Manual is a distillation of the knowledge and experience of many of the major figures in the history of Xingyi boxing. Translator John Groschwitz includes previously unavailable materials from the complete original book making this revised and expanded edition an essential guide for today's practitioner of this traditional martial art. From the Trade Paperback edition.

Building Custom PHP Extensions-Blake Schwendiman 2003 A comprehensive guide to developing extensions for PHP. Includes detailed examples for using all of the standard atomic and complex PHP variable types. Also includes object-oriented examples and methods for exposing new internal classes. This book is intended for advanced PHP and C programmers looking to either extend PHP directly or to gain a better understanding of the PHP programming internals. Linux and Windows

examples are covered.