Little Leaps Manual Codes

Practical UML Statecharts in C/C++ Second Edition bridges the gap between high-level abstract concepts of the Unified Modeling Language (UML) and the actual programming aspects of modern hierarchical state machines (UML statecharts). The book describes a lightweight, open source, event-driven infrastructure, called QP that enables direct manual coding UML statecharts and concurrent event-driven applications in C or C++ without big tools. This book is presented in two parts. In Part I, you get a practical description of the relevant state machine concepts starting from traditional finite state automata to modern UML state machines followed by state machine coding techniques and state-machine design patterns, all illustrated with executable examples. In Part II, you find a detailed design study of a generic real-time framework indispensable for combining concurrent, event-driven state machines into robust applications. Part II begins with a clear explanation of the key event-driven programming concepts such as inversion of control (Hollywood Principle), blocking versus non-blocking code, run-to-completion (RTC) execution semantics, the importance of event queues, dealing with time, and the role of state machines to maintain the context from one event to the next. This background is designed to help software developers in making the transition from the traditional sequential to the modern event-driven programming, which can be one of the trickiest paradigm shifts. The lightweight QP event-driven infrastructure goes several steps beyond the traditional real-time operating system (RTOS). In the simplest configuration, QP runs on bare-metal microprocessor, microcontroller, or DSP completely replacing the RTOS. QP can also work with almost any OS/RTOS to take advantage of the existing device drivers, communication stacks, and other middleware. The accompanying website to this book contains complete open source code for QP, ports to popular processors and operating systems, including 80x86, ARM Cortex-M3, MSP430, and Linux, as well as all examples described in the book.

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CUDA is a computing architecture designed to facilitate the development of parallel programs. In conjunction with a comprehensive software platform, the CUDA Architecture enables programmers to draw on the immense power of graphics processing units (GPUs) when building high-performance applications. GPUs, of course, have long been available for demanding graphics and game applications. CUDA now brings this valuable resource to programmers working on applications in other domains, including science, engineering, and finance. No knowledge of graphics programming is required—just the ability to program in a modestly extended version of C. CUDA by Example, written by two senior members of the CUDA software platform team, shows programmers how to employ this new technology. The authors introduce each area of CUDA development through working examples. After a concise introduction to the CUDA platform and architecture, as well as a quick-start guide to CUDA C, the book details the techniques and trade-offs associated with each key CUDA feature. You'll discover when to use each CUDA C extension and how to write CUDA software that delivers truly outstanding performance. Major topics covered include Parallel programming Thread cooperation Constant memory and events Texture memory Graphics interoperability Atomics Streams CUDA C on multiple GPUs Advanced atomics Additional CUDA resources All the CUDA software tools you'll need are freely available for download from NVIDIA. http://developer.nvidia.com/object/cuda-by-example.html

This book offers a highly accessible introduction to natural language processing, the field that supports a variety of language technologies, from predictive text and email filtering to automatic summarization and translation. With it, you'll learn how to write Python programs that work with large collections of unstructured text. You'll access richly annotated datasets using a comprehensive range of linguistic data structures, and you'll understand the main algorithms

for analyzing the content and structure of written communication. Packed with examples and exercises, Natural Language Processing with Python will help you: Extract information from unstructured text, either to guess the topic or identify "named entities" Analyze linguistic structure in text, including parsing and semantic analysis Access popular linguistic databases, including WordNet and treebanks Integrate techniques drawn from fields as diverse as linguistics and artificial intelligence This book will help you gain practical skills in natural language processing using the Python programming language and the Natural Language Toolkit (NLTK) open source library. If you're interested in developing web applications, analyzing multilingual news sources, or documenting endangered languages -- or if you're simply curious to have a programmer's perspective on how human language works -- you'll find Natural Language Processing with Python both fascinating and immensely useful.

In 1996 the Institute of Medicine launched the Quality Chasm Series, a series of reports focused on assessing and improving the nationâ€™s quality of health care. Preventing Medication Errors is the newest volume in the series. Responding to the key messages in earlier volumes of the seriesâ€"To Err Is Human (2000), Crossing the Quality Chasm (2001), and Patient Safety (2004)â€"this book sets forth an agenda for improving the safety of medication use. It begins by providing an overview of the system for drug development, regulation, distribution, and use. Preventing Medication Errors also examines the peer-reviewed literature on the incidence and the cost of medication errors and the effectiveness of error prevention strategies. Presenting data that will foster the reduction of medication errors, the book provides action agendas detailing the measures needed to improve the safety of medication use in both the short- and long-term. Patients, primary health care providers, health care organizations, purchasers of group health care, legislators, and those affiliated with providing medications and medication- related products and services will benefit from this guide to reducing medication errors.

The Bulletin of the Atomic Scientists is the premier public resource on scientific and technological developments that impact global security. Founded by Manhattan Project Scientists, the Bulletin's iconic "Doomsday Clock" stimulates solutions for a safer world.

First-ever comprehensive introduction to the major new subject of quantum computing and quantum information.

Thousands of years of Yoga are distilled into a code of seven daily practices that enable the modern, busy person to look better, feel better, and live a stress-free life. In this succinct yet illuminating book, Yogi Cameron demystifies 5,000 years of yogic wisdom into a clear language for everyone to benefit from, regardless of your familiarity or ability with yoga. After a successful career as a fashion model, Yogi Cameron left Paris for southern India, where he became a decades-long student of the Ayurveda and ancient yogic traditions that he now shares with global audiences. In this book he explains how to move beyond the yoga mat and into the world. You'll learn to balance daily demands while achieving a higher level of consciousness and self-knowledge through seven daily practices. With relatable chapters and practices expertly created to fit into our normal, fast-paced days, The Yogi Code allows you to finally become closer to understanding your eternal purpose.

Hands-on Machine Learning with R provides a practical and applied approach to learning and developing intuition into today's most popular machine learning methods. This book serves as a practitioner's guide to the machine learning process and is meant to help the reader learn to apply the machine learning

stack within R, which includes using various R packages such as glmnet, h2o, ranger, xgboost, keras, and others to effectively model and gain insight from their data. The book favors a hands-on approach, providing an intuitive understanding of machine learning concepts through concrete examples and just a little bit of theory. Throughout this book, the reader will be exposed to the entire machine learning process including feature engineering, resampling, hyperparameter tuning, model evaluation, and interpretation. The reader will be exposed to powerful algorithms such as regularized regression, random forests, gradient boosting machines, deep learning, generalized low rank models, and more! By favoring a hands-on approach and using real word data, the reader will gain an intuitive understanding of the architectures and engines that drive these algorithms and packages, understand when and how to tune the various hyperparameters, and be able to interpret model results. By the end of this book, the reader should have a firm grasp of R's machine learning stack and be able to implement a systematic approach for producing high quality modeling results. Features: · Offers a practical and applied introduction to the most popular machine learning methods. · Topics covered include feature engineering, resampling, deep learning and more. · Uses a hands-on approach and real world data.

Special edition slipcase edition of John Green's Paper Towns, with pop-up paper town. From the bestselling author of The Fault in our Stars. Quentin Jacobsen has always loved Margo Roth Spiegelman, for Margo (and her adventures) are the stuff of legend at their high school. So when she one day climbs through his window and summons him on an all-night road trip of revenge he cannot help but follow. But the next day Margo doesn't come to school and a week later she is still missing. Q soon learns that there are clues in her disappearance . . . and they are for him. But as he gets deeper into the mystery - culminating in another awesome road trip across America - he becomes less sure of who and what he is looking for. Masterfully written by John Green, this is a thoughtful, insightful and hilarious coming-of-age story.

Coding For Kids For DummiesFor Dummies

The Book of R is a comprehensive, beginner-friendly guide to R, the world's most popular programming language for statistical analysis. Even if you have no programming experience and little more than a grounding in the basics of mathematics, you'll find everything you need to begin using R effectively for statistical analysis. You'll start with the basics, like how to handle data and write simple programs, before moving on to more advanced topics, like producing statistical summaries of your data and performing statistical tests and modeling. You'll even learn how to create impressive data visualizations with R's basic graphics tools and contributed packages, like ggplot2 and ggvis, as well as interactive 3D visualizations using the rgl package. Dozens of hands-on exercises (with downloadable solutions) take you from theory to practice, as you learn: –The fundamentals of programming in R, including how to write data

frames, create functions, and use variables, statements, and loops –Statistical concepts like exploratory data analysis, probabilities, hypothesis tests, and regression modeling, and how to execute them in R –How to access R's thousands of functions, libraries, and data sets –How to draw valid and useful conclusions from your data –How to create publication-quality graphics of your results Combining detailed explanations with real-world examples and exercises, this book will provide you with a solid understanding of both statistics and the depth of R's functionality. Make The Book of R your doorway into the growing world of data analysis.

InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

The Unified Modeling Language has become the industry standard for the expression of software designs. The Java programming language continues to grow in popularity as the language of choice for the serious application developer. Using UML and Java together would appear to be a natural marriage, one that can produce considerable benefit. However, there are nuances that the seasoned developer needs to keep in mind when using UML and Java together. Software expert Robert Martin presents a concise guide, with numerous examples, that will help the programmer leverage the power of both development concepts. The author ignores features of UML that do not apply to java programmers, saving the reader time and effort. He provides direct guidance and points the reader to real-world usage scenarios. The overall practical approach of this book brings key information related to Java to the many presentations. The result is an highly practical guide to using the UML with Java.

In the last few years, digital SLR cameras have taken the astrophotography world by storm. It is now easier to photograph the stars than ever before! They are compact and portable, flexible to adapt with different lenses and for telescope use, and above all DSLR cameras are easy and enjoyable to use. In this concise guide, experienced astrophotography expert Michael Covington outlines the simple, enduring basics that will enable you to get started, and help you get the most from your equipment. He covers a wide selection of equipment, simple and advanced projects, technical considerations and image processing techniques. Unlike other astrophotography books, this one focuses specifically on DSLR cameras, not astronomical CCDs, non-DSLR digital cameras, or film. This guide is ideal for astrophotographers who wish to develop their skills using DSLR cameras and as a friendly introduction to amateur astronomers or photographers curious about photographing the night sky.

"Fascinating. Doidge's book is a remarkable and hopeful portrait of the endless adaptability of the human brain."—Oliver Sacks, MD, author of The Man Who Mistook His Wife for a Hat What is neuroplasticity? Is it possible to change your brain? Norman Doidge's inspiring guide to the new brain science explains all of this and more An astonishing new science called neuroplasticity is overthrowing the centuries-old notion that the human brain is immutable, and proving that it is, in fact, possible to change your brain. Psychoanalyst, Norman Doidge, M.D., traveled the country to meet both the brilliant scientists championing neuroplasticity, its healing powers, and the people whose lives they've transformed—people whose mental limitations, brain damage or brain trauma were seen as unalterable. We see a woman born with half a brain that rewired itself to work as a whole, blind people who learn to see, learning disorders cured, IQs raised, aging brains rejuvenated, stroke patients learning to speak, children with cerebral palsy learning to move with more grace, depression and anxiety disorders successfully treated, and lifelong character traits changed. Using these marvelous stories to probe mysteries of the body, emotion, love, sex, culture, and education, Dr. Doidge has written an immensely moving, inspiring book that will permanently alter the way we look at our brains,

human nature, and human potential.

Programming Massively Parallel Processors: A Hands-on Approach, Second Edition, teaches students how to program massively parallel processors. It offers a detailed discussion of various techniques for constructing parallel programs. Case studies are used to demonstrate the development process, which begins with computational thinking and ends with effective and efficient parallel programs. This guide shows both student and professional alike the basic concepts of parallel programming and GPU architecture. Topics of performance, floating-point format, parallel patterns, and dynamic parallelism are covered in depth. This revised edition contains more parallel programming examples, commonly-used libraries such as Thrust, and explanations of the latest tools. It also provides new coverage of CUDA 5.0, improved performance, enhanced development tools, increased hardware support, and more; increased coverage of related technology, OpenCL and new material on algorithm patterns, GPU clusters, host programming, and data parallelism; and two new case studies (on MRI reconstruction and molecular visualization) that explore the latest applications of CUDA and GPUs for scientific research and high-performance computing. This book should be a valuable resource for advanced students, software engineers, programmers, and hardware engineers. New coverage of CUDA 5.0, improved performance, enhanced development tools, increased hardware support, and more Increased coverage of related technology, OpenCL and new material on algorithm patterns, GPU clusters, host programming, and data parallelism Two new case studies (on MRI reconstruction and molecular visualization) explore the latest applications of CUDA and GPUs for scientific research and high-performance computing 'Downright revolutionary... the title is a major understatement... 'Quantum Programming' may ultimately change the way embedded software is designed.' -- Michael Barr, Editor-in-Chief, Embedded Systems Programming magazine (Click here

The owner's guide to the voice, this book will help you develop an understanding of the voice and how it works.

"I believe that the discoveries in this book can change our understanding of how we store emotional experiences and in so doing, change our lives. The Emotion Code has already changed many lives around the world, and it is my hope that millions more will be led to use this simple tool to heal themselves and their loved ones."—Tony Robbins In this newly revised and expanded edition of The Emotion Code, renowned holistic physician and lecturer Dr. Bradley Nelson skillfully lays bare the inner workings of the subconscious mind. He reveals how emotionally-charged events from your past can still be haunting you in the form of "trapped emotions"—emotional energies that literally inhabit your body. These trapped emotions can fester in your life and body, creating pain, malfunction, and eventual disease. They can also extract a heavy mental and emotional toll on you, impacting how you think, the choices that you make, and the level of success and abundance you are able to achieve. Perhaps most damaging of all, trapped emotional energies can gather around your heart, cutting off your ability to give and receive love. The Emotion Code is a powerful and simple way to rid yourself of this unseen baggage. Dr. Nelson's method gives you the tools to identify and release the trapped emotions in your life, eliminating your "emotional baggage," and opening your heart and body to the positive energies of the world. Filled with real-world examples from many years of clinical practice, The Emotion Code is a distinct and authoritative work that has become a classic on self-

healing.

With iOS 5, Apple added more than 200 new features to the iPad 2, but there's still no printed guide to using all its amazing capabilities. That's where this full-color Missing Manual comes in. You'll learn how to stuff your iPad with media, organize your personal life, wirelessly stream content to and from your tablet, stay connected to friends, and much more. The important stuff you need to know: Build your media library. Fill your iPad with music, movies, TV shows, eBooks, eMagazines, photos, and more. Go wireless. Sync content between your computer and iPad—no wires needed. Get online. Connect through WiFi or Wi-Fi + 3G, and surf the Web using the iPad's new tabbed browser. Consolidate email. Read and send messages from any of your email accounts. Get social. Use built-in apps like iMessage, Twitter, and Ping to stay in touch. Store stuff in iCloud. Stash your content online for free, and sync up all your devices automatically. Interact with your iPad. Learn new finger moves and undocumented tips, tricks, and shortcuts.

This book highlights the interdisciplinary study of cognition, mind and behavior from an information processing perspective, and describes related applications to health informatics. The respective chapters address health problem-solving and education, decision support systems, user-centered interfaces, and the design and use of controlled medical terminologies. Reflecting cutting-edge research on computational methods – including theory, algorithms, numerical simulation, error and uncertainty analysis, and their applications – the book offers a valuable resource for doctoral students and researchers in the fields of Computer Science and Engineering.

A cool coding book—just for kids! When your kid is ready to add coding to their creativity toolbox but you're not ready to ship them off to coding camp, Getting Started with Coding is here to help them get started with the basics of coding. It walks young readers through fun projects that were tested in the classroom. Each project has an end-goal to instill confidence and a sense of achievement in young coders. Steering clear of jargon and confusing terminology, Getting Started with Coding is written in a language your child can understand. Plus, the full-color design is heavy on eye-catching graphics and the format is focused on the steps to completing a project, making it approachable for any youngster with an interest in exploring the wonderful world of coding. So why send your kid to a camp when they can become a coding champ—right in the comfort of your living room? Introduces the basics of coding to create a drawing tool Teaches how to create graphics and apply code to make them do things Shows how to make things that respond to motion and collision commands Introduces score-keeping and timing into coding If your child is a burgeoning techy with a desire to learn coding, Getting Started with Coding is the perfect place to start.

A guide for kids who want to learn coding Coding is quickly becoming an essential academic skill, right up there with reading, writing, and arithmetic. This book is an ideal way for young learners ages 8-13 who want more coding

knowledge than you can learn in an hour, a day, or a week. Written by a classroom instructor with over a decade of experience teaching technology skills to kids as young as five, this book teaches the steps and logic needed to write code, solve problems, and create fun games and animations using projects based in Scratch and JavaScript. This 2nd Edition is fully updated to no longer require any limited-time software downloads to complete the projects. Learn the unique logic behind writing computer code Use simple coding tools ideal for teaching kids and beginners Build games and animations you can show off to friends Add motion and interactivity to your projects Whether you're a kid ready to make fun things using technology or a parent, teacher, or mentor looking to introduce coding in an eager child's life, this fun book makes getting started with coding fun and easy!

The Tongue and Quill has been a valued Air Force resource for decades and many Airmen from our Total Force of uniformed and civilian members have contributed their talents to various editions over the years. This revision is built upon the foundation of governing directives and user's inputs from the unit level all the way up to Headquarters Air Force. A small team of Total Force Airmen from the Air University, the United States Air Force Academy, Headquarters Air Education and Training Command (AETC), the Air Force Reserve Command (AFRC), Air National Guard (ANG), and Headquarters Air Force compiled inputs from the field and rebuilt The Tongue and Quill to meet the needs of today's Airmen. The team put many hours into this effort over a span of almost two years to improve the content, relevance, and organization of material throughout this handbook. As the final files go to press it is the desire of The Tongue and Quill team to say thank you to every Airman who assisted in making this edition better; you have our sincere appreciation!

This resource covers all the vital issues which must be considered before putting together the components of technical services workstations, and offers information applicable to everyone involved, from the head of cataloguing to the paraprofessionals.

This manual has been designed and written with the purpose of introducing key concepts and areas of debate around the "creative economy", a valuable development opportunity that Latin America, the Caribbean and the world at large cannot afford to miss. The creative economy, which we call the "Orange Economy" in this book (you'll see why), encompasses the immense wealth of talent, intellectual property, interconnectedness, and, of course, cultural heritage of the Latin American and Caribbean region (and indeed, every region). At the end of this manual, you will have the knowledge base necessary to understand and explain what the Orange Economy is and why it is so important. You will also acquire the analytical tools needed to take better advantage of opportunities across the arts, heritage, media, and creative services.

How can we make sense of make sense of the deluge of information in the digital age? The new science of Quantitative Ethnography dissolves the boundaries between quantitative and qualitative research to give researchers tools for studying the human side of big data: to understand not just what data says, but what it tells us about the people who created it. Thoughtful, literate, and humane, Quantitative Ethnography integrates data-mining, discourse analysis, psychology, statistics, and ethnography into a brand-new science for understanding what people do and why they do it. Packed with anecdotes, stories, and clear explanations of complex ideas, Quantitative Ethnography is an engaging introduction to research methods for students, an introduction to data science for qualitative researchers, and an introduction to the humanities for statisticians--but also a compelling philosophical and intellectual journey for anyone who wants to understand learning, culture and behavior in the age of big data.

Jack the Ripper and legacy codebases have more in common than you'd think. Inspired by forensic psychology methods, you'll learn strategies to predict the future of your codebase, assess refactoring direction, and understand how your team influences the design. With its unique blend of forensic psychology and code analysis, this book arms you with the strategies you need, no matter what programming language you use. Software is a living entity that's constantly changing. To understand software systems, we need to know where they came from and how they evolved. By mining commit data and analyzing the history of your code, you can start fixes ahead of time to eliminate broken designs, maintenance issues, and team productivity bottlenecks. In this book, you'll learn forensic psychology techniques to successfully maintain your software. You'll create a geographic profile from your commit data to find hotspots, and apply temporal coupling concepts to uncover hidden relationships between unrelated areas in your code. You'll also measure the effectiveness of your code improvements. You'll learn how to apply these techniques on projects both large and small. For small projects, you'll get new insights into your design and how well the code fits your ideas. For large projects, you'll identify the good and the fragile parts. Large-scale development is also a social activity, and the team's dynamics influence code quality. That's why this book shows you how to uncover social biases when analyzing the evolution of your system. You'll use commit messages as eyewitness accounts to what is really happening in your code. Finally, you'll put it all together by tracking organizational problems in the code and finding out how to fix them. Come join the hunt for better code! What You Need: You need Java 6 and Python 2.7 to run the accompanying analysis tools. You also need Git to follow along with the examples.

A handbook for the methodology of team-based qualitative research in the social sciences.

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