Coders At Work Reflections On The Craft Of Programming Peter Seibel

JONAH SWANSON

Seriously Good Software Apress
"This book takes an impossibly broad area of computer science and communicates what working developers need to understand in a clear and thorough way." - David Jacobs, Product Advance Local Key Features Master the core algorithms of deep learning and AI Build an intuitive understanding of AI problems and solutions Written in simple language, with lots of illustrations and hands-on examples Creative coding exercises, including building a maze puzzle game and exploring drone optimization About The Book "Artificial intelligence" requires teaching a computer how to approach different types of problems in a systematic way. The core of AI is the algorithms that the system uses to do things like identifying objects in an image, interpreting the meaning of text, or looking for patterns in data to spot fraud and other anomalies. Mastering the core algorithms for search, image recognition, and other common tasks is essential to building good AI applications Grokking Artificial Intelligence Algorithms uses illustrations, exercises, and jargon-free explanations to teach fundamental AI concepts.You'll explore coding challenges like detecting bank fraud, creating artistic masterpieces, and setting a self-driving car in motion. All you need is the algebra you remember from high school math class and beginning programming skills. What You Will Learn Use cases for different AI algorithms Intelligent search for decision making Biologically inspired algorithms Machine learning and neural networks Reinforcement learning to build a better robot This Book Is Written For For software developers with high school–level math skills. About the Author Rishal Hurbans is a technologist, startup and AI group founder, and international speaker. Table of Contents 1 Intuition of artificial intelligence 2 Search fundamentals 3 Intelligent search 4 Evolutionary algorithms 5 Advanced evolutionary approaches 6 Swarm intelligence: Ants 7 Swarm intelligence: Particles 8 Machine learning 9 Artificial neural networks 10 Reinforcement learning with Q-learning
Domain-Driven Design Distilled MCD
Peter Seibel interviews 15 of the most interesting computer programmers alive today in Coders at Work, offering a companion volume to Apress's highly acclaimed best-seller Founders at Work by Jessica Livingston. As the words "at work" suggest, Peter Seibel focuses on how his interviewees tackle the day-to-day work of programming, while revealing much more, like how they became great programmers, how they recognize programming talent in others, and what kinds of problems they find most interesting. Hundreds of people have suggested names of programmers to interview on the Coders at Work web site: www.codersatwork.com. The complete list was 284 names. Having digested everyone's feedback, we selected 15 folks who've been kind enough to agree to be interviewed: Frances Allen: Pioneer in optimizing compilers, first woman to win the Turing Award (2006) and first female IBM fellow Joe Armstrong: Inventor of Erlang Joshua Bloch: Author of the Java collections framework, now at Google Bernie Cosell: One of the main software guys behind the original ARPANET IMPs and a master debugger Douglas Crockford: JSON founder, JavaScript architect at Yahoo! L. Peter Deutsch: Author of Ghostscript, implementer of Smalltalk-80 at Xerox PARC and Lisp 1.5 on PDP-1 Brendan Eich: Inventor of JavaScript, CTO of the Mozilla Corporation Brad Fitzpatrick: Writer of LiveJournal, OpenID, memcached, and Perlbal Dan Ingalls: Smalltalk implementor and designer Simon Peyton Jones: Coinventor of Haskell and lead designer of Glasgow Haskell Compiler Donald Knuth: Author of The Art of Computer Programming and

creator of TeX Peter Norvig: Director of Research at Google and author of the standard text on AI Guy Steele: Coinventor of Scheme and part of the Common Lisp Gang of Five, currently working on Fortress Ken Thompson: Inventor of UNIX Jamie Zawinski: Author of XEmacs and early Netscape/Mozilla hacker

TEX and METAFONT Princeton University Press

In one of the most unorthodox yet necessary programming books ever to appear, Daniel Kohanski, a seasoned programmer and systems consultant, delves into the foundational concepts and basic mechanics of computers and computer programming. Rather than writing yet another book that teaches readers how to write code, Kohanski penetrates more deeply into the nature of programming istelf. By exploring what programming is all about, The Philosophical Programmer: Reflections on the Moth in the Machine offers an introduction for the computer neophyte as well as an opportunity for experienced programmers to understand better the fundamental nature of their craft.

Life in Code Addison-Wesley

More than a guide to the Smalltalk language.

A S C Holding Corporation

An argument that we must read code for more than what it does—we must consider what it means. Computer source code has become part of popular discourse. Code is read not only by programmers but by lawyers, artists, pundits, reporters, political activists, and literary scholars; it is used in political debate, works of art, popular entertainment, and historical accounts. In this book, Mark Marino argues that code means more than merely what it does; we must also consider what it means. We need to learn to read code critically. Marino presents a series of case studies—ranging from the Climategate scandal to a hactivist art project on the US-Mexico border—as lessons in critical code reading. Marino shows how, in the process of its circulation, the meaning of code changes beyond its functional role to include connotations and implications, opening it up to interpretation and inference—and misinterpretation and reappropriation. The Climategate controversy, for example, stemmed from a misreading of a bit of placeholder code as a “smoking gun” that supposedly proved fabrication of climate data. A poetry generator created by Nick Montfort was remixed and reimagined by other poets, and subject to literary interpretation. Each case study begins by presenting a small and self-contained passage of code—by coders as disparate as programming pioneer Grace Hopper and philosopher Friedrich Kittler—and an accessible explanation of its context and functioning. Marino then explores its extra-functional significance, demonstrating a variety of interpretive approaches.

Founders at Work Addison-Wesley Professional

Presents practical advice on the disciplines, techniques, tools, and practices of computer programming and how to approach software development with a sense of pride, honor, and self-respect.

Coding Your Way Through the Interview Simon and Schuster

Coders at WorkReflections on the Craft of ProgrammingApress

Programmers at Work Princeton University Press

In Math for Programmers you’ll explore important mathematical concepts through hands-on coding. Filled with graphics and more than 300 exercises and mini-projects, this book unlocks the door to interesting–and lucrative!–careers in some of today’s hottest fields. As you tackle the basics of linear algebra, calculus, and machine learning, you’ll master the key Python libraries used to turn them into real-world software applications. Summary To score a job in data science, machine learning, computer graphics, and cryptography, you need to bring strong math skills to the party. Math for Programmers teaches the math you need for these hot careers, concentrating on what you need to know as a developer. Filled with lots of helpful graphics and more than 200 exercises and mini-projects, this book unlocks the door to interesting–and lucrative!–careers in some of today’s hottest programming fields. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Skip the mathematical jargon: This one-of-a-kind book uses Python to teach the math you need to build games, simulations, 3D graphics, and machine learning algorithms. Discover how algebra and calculus come alive when you see them in code! About the book In Math for Programmers you’ll explore important mathematical concepts through hands-on coding. Filled with graphics and more than 300 exercises and mini-projects, this book unlocks the door to interesting–and lucrative!–careers in some of today’s hottest fields. As you tackle the basics of linear algebra, calculus, and machine learning, you’ll master the key Python libraries used to turn them into real-world software applications. What's inside Vector geometry for computer graphics Matrices and linear transformations Core concepts from calculus Simulation and optimization Image and audio processing Machine learning algorithms for regression and classification About the reader For programmers with basic skills in algebra. About the author Paul Orland is a programmer, software entrepreneur, and math enthusiast. He is co-founder of Tachyus, a start-up building predictive analytics software for the energy industry. You can find him online at www.paulor.land. Table of Contents 1 Learning math with code PART I - VECTORS AND GRAPHICS 2 Drawing with 2D vectors 3 Ascending to the 3D world 4 Transforming vectors and graphics 5 Computing transformations with matrices 6 Generalizing to higher dimensions 7 Solving systems of linear equations PART 2 - CALCULUS AND PHYSICAL SIMULATION 8 Understanding rates of change 9 Simulating moving objects 10 Working with symbolic expressions 11 Simulating force fields 12 Optimizing a physical system 13 Analyzing sound waves with a Fourier series PART 3 - MACHINE LEARNING APPLICATIONS 14 Fitting functions to data 15 Classifying data with logistic regression 16 Training neural networks

The Philosophical Programmer Addison-Wesley Professional

Peter Seibel interviews 15 of the most interesting computer programmers alive today in Coders at Work, offering a companion volume to Apress’s highly acclaimed best-seller Founders at Work by Jessica Livingston. As the words “at work” suggest, Peter Seibel focuses on how his interviewees tackle the day-to-day work of programming, while revealing much more, like how they became great programmers, how they recognize programming talent in others, and what kinds of problems they find most interesting. Hundreds of people have suggested names of programmers to interview on the Coders at Work web site: www.codersatwork.com. The complete list was 284 names. Having digested everyone’s feedback, we selected 15 folks who’ve been kind enough to agree to be interviewed: Frances Allen: Pioneer in optimizing compilers, first woman to win the Turing Award (2006) and first female IBM fellow Joe Armstrong: Inventor of Erlang Joshua Bloch: Author of the Java collections framework, now at Google Bernie Cosell: One of the main software guys behind the original ARPANET IMPs and a master debugger Douglas Crockford: JSON founder, JavaScript architect at Yahoo! L. Peter Deutsch: Author of Ghostscript, implementer of Smalltalk-80 at Xerox PARC and Lisp 1.5 on PDP-1 Brendan Eich: Inventor of JavaScript, CTO of the Mozilla Corporation Brad Fitzpatrick: Writer of LiveJournal, OpenID, memcached, and Perlbal Dan Ingalls: Smalltalk implementor and designer Simon Peyton Jones: Coinventor of Haskell and lead designer of Glasgow Haskell Compiler Donald Knuth: Author of The Art of Computer Programming and creator of TeX Peter Norvig: Director of Research at Google and author of the standard text on AI Guy Steele: Coinventor of Scheme and part of the Common Lisp Gang of Five, currently working on Fortress Ken Thompson: Inventor of UNIX Jamie Zawinski: Author of XEmacs and early Netscape/Mozilla hacker

Coders iUniverse

Systems development is the process of creating and maintaining information systems, including hardware, software, data, procedures and people. It combines technical expertise with business knowledge and management skill. This practical book provides a comprehensive introduction to the topic and can also be used as a handy reference guide. It discusses key elements of systems development and is the only textbook that supports the BCS Certificate in Systems Development.

Stories of Startups' Early Days Lennex

Domain-Driven Design (DDD) software modeling delivers powerful results in practice, not just in theory, which is why developers worldwide are rapidly moving to adopt it. Now, for the first time, there’s an accessible guide to the basics of DDD: What it is, what problems it solves, how it works, and how to quickly gain value from it. Concise, readable, and actionable, Domain-Driven Design Distilled never buries you in detail–it focuses on what you need to know to get results. Vaughn Vernon, author of the best-selling Implementing Domain-Driven Design, draws on his twenty years of experience applying DDD principles to real-world situations. He is uniquely well-qualified to demystify its complexities, illuminate its subtleties, and help you solve the problems you might encounter. Vernon guides you through each core DDD technique for building better software. You’ll learn how to segregate domain models using the powerful Bounded Contexts pattern, to develop a Ubiquitous Language within an explicitly bounded context, and to help domain experts and developers work together to create that language. Vernon shows how to use Subdomains to handle legacy systems and to integrate multiple Bounded Contexts to define both team relationships and technical mechanisms. Domain-Driven Design Distilled brings DDD to life. Whether you’re a developer, architect, analyst, consultant, or customer, Vernon helps you truly understand it so you can benefit from its remarkable power. Coverage includes What DDD can do for you and your organization–and why it’s so important The cornerstones of strategic design with DDD: Bounded Contexts and Ubiquitous Language Strategic design with Subdomains Context Mapping: helping teams work together and integrate software more strategically Tactical design with Aggregates and Domain Events Using project acceleration and management tools to establish and maintain team cadence

Code Complete Springer Science & Business Media

Achieve the best health of your life by following in the footsteps of people who never get sick. Some take a daily nap. Or a cold shower. Some do yoga, lift weights, swear by brewer’s yeast. And one dunks his head in hydrogen peroxide—he hasn’t had a cold in two decades. In profiles of twenty-five people who never get sick and revealing their secrets and practices, Gene Stone covers the surprising science of personal health. The stories make it real, the research explains why, and the do-it-yourself information shows how to bring each secret into your own life. It’s your turn to become a person who never gets sick.

Critical Code Studies Microsoft Press

How do the experts solve difficult problems in software development? In this unique and insightful book, leading computer scientists offer case studies that reveal how they found unusual, carefully designed solutions to high-profile projects. You will be able to look over the shoulder of major coding and design experts to see problems through their eyes. This is not simply another design patterns book, or another software engineering treatise on the right and wrong way to do things. The authors think aloud as they work through their project's architecture, the tradeoffs made in its construction, and when it was important to break rules. This book contains 33 chapters contributed by Brian Kernighan, KarlFogel, Jon Bentley, Tim Bray, Elliotte Rusty Harold, Michael Feathers,Alberto Savoia, Charles Petzold, Douglas Crockford, Henry S. Warren,Jr., Ashish Gulhati, Lincoln Stein, Jim Kent, Jack Dongarra and PiotrLuszczek, Adam Kolawa, Greg Kroah-Hartman, Diomidis Spinellis, AndrewKuchling, Travis E. Oliphant, Ronald Mak, Rogerio Atem de Carvalho andRafael Monnerat, Bryan Cantrill, Jeff Dean and Sanjay Ghemawat, SimonPeyton Jones, Kent Dybvig, William Otte and Douglas C. Schmidt, AndrewPatzer, Andreas Zeller, Yukihiro Matsumoto, Arun Mehta, TV Raman,Laura Wingerd and Christopher Seiwald, and Brian Hayes. Beautiful Code is an opportunity for master coders to tell their story. All author royalties will be donated to Amnesty International.

Facts and Fallacies of Software Engineering Pearson Education

When programmers list their favorite books, Jon Bentley’s collection of programming pearls is commonly included among the classics. Just as natural pearls grow from grains of sand that irritate oysters, programming pearls have grown from real problems that have irritated real programmers. With origins beyond solid engineering, in the realm of insight and creativity, Bentley’s pearls offer unique and clever solutions to those nagging problems. Illustrated by programs designed as much for fun as for instruction, the book is filled with lucid and witty descriptions of practical programming techniques and fundamental design principles. It is not at all surprising that Programming Pearls has been so highly valued by programmers at every level of experience. In this revision, the first in 14 years, Bentley has substantially updated his essays to reflect current programming methods and environments. In addition, there are three new essays on testing, debugging, and timing set representations string problems All the original programs have been rewritten, and an equal amount of new code has been generated. Implementations of all the programs, in C or C++, are now available on the Web. What remains the same in this new edition is Bentley’s focus on the hard core of programming problems and his delivery of workable solutions to those problems. Whether you are new to Bentley’s classic or are revisiting his work for some fresh insight, the book is sure to make your own list of favorites.

How Google Tests Software Penguin

A noted journalist chronicles three years in the lives of a team of maverick software developers, led by Lotus 1-2-3 creator Mitch Kapor, intent on creating a revolutionary personal information manager to challenge Microsoft Outlook. Reprint. 30,000 first printing.

A Code of Conduct for Professional Programmers MIT Press

Who are computer hackers? What is free software? And what does the emergence of a community dedicated to the production of free and open source software--and to hacking as a technical, aesthetic, and moral project--reveal about the values of contemporary liberalism? Exploring the rise and political significance of the free and open source software (F/OSS) movement in the United States and Europe, Coding Freedom details the ethics behind hackers' devotion to F/OSS, the social

codes that guide its production, and the political struggles through which hackers question the scope and direction of copyright and patent law. In telling the story of the F/OSS movement, the book unfolds a broader narrative involving computing, the politics of access, and intellectual property. E. Gabriella Coleman tracks the ways in which hackers collaborate and examines passionate manifestos, hacker humor, free software project governance, and festive hacker conferences. Looking at the ways that hackers sustain their productive freedom, Coleman shows that these activists, driven by a commitment to their work, reformulate key ideals including free speech, transparency, and meritocracy, and refuse restrictive intellectual protections. Coleman demonstrates how hacking, so often marginalized or misunderstood, sheds light on the continuing relevance of liberalism in online collaboration.

Beautiful Code John Wiley & Sons

User Interface Design for Mere Mortals takes the mystery out of designing effective interfaces for both desktop and web applications. It is recommended reading for anyone who wants to provide users of their software with interfaces that are intuitive and easy-to-use. The key to any successful application lies in providing an interface users not only enjoy interacting with but which also saves time, eliminates frustration, and gets the job done with a minimum of effort. Readers will discover the secrets of good interface design by learning how users behave and the expectations that users have of different types of interfaces. Anyone who reads User Interface Design for Mere Mortals will benefit from • Gaining an appreciation of the differences in the “look and feel” of interfaces for a variety of systems and platforms • Learning how to go about designing and creating the most appropriate interface for the application or website being developed • Becoming familiar with all the different components that make up an interface and the important role that each of those components plays in communicating with users • Understanding the business benefits that flow from good interface design such as significantly reduced support costs • Gaining invaluable insights into how users behave, including the seven stages of human interaction with computers • Working through case study based, in-depth analysis of each of the stages involved in designing a user interface • Acquiring practical knowledge about the similarities and differences between designing websites and traditional desktop applications • Learning how to define, conduct, and analyze usability testing Through the use of the proven For Mere Mortals format, User Interface Design for Mere Mortals succeeds in parting the veil of mystery surrounding effective user interface design. Whatever your background, the For Mere Mortals format makes the information easily accessible and usable. Contents Preface Introduction CHAPTER 1 Brief Histories CHAPTER 2 Concepts and Issues CHAPTER 3 Making the Business Case CHAPTER 4 Good Design CHAPTER 5 How User Behave CHAPTER 6 Analyzing Your Users CHAPTER 7 Designing a User Interface CHAPTER 8 Designing a Web Site CHAPTER 9 Usability APPENDIX A Answers to Review Questions APPENDIX B Recommended Reading Glossary References Index

Twenty-one Cinematographers at Work Pragmatic Bookshelf

2012 Jolt Award finalist! Pioneering the Future of Software Test Do you need to get it right, too? Then, learn from Google. Legendary testing expert James Whittaker, until recently a Google testing leader, and two top Google experts reveal exactly how Google tests software, offering brand-new best practices you can use even if you’re not quite Google’s size…yet! Breakthrough Techniques You Can Actually Use Discover 100% practical, amazingly scalable techniques for analyzing risk and planning tests…thinking like real users…implementing exploratory, black box, white box, and acceptance testing…getting usable feedback…tracking issues…choosing and creating tools…testing “Docs & Mocks,” interfaces, classes, modules, libraries, binaries, services, and infrastructure…reviewing code and refactoring…using test hooks, presubmit scripts, queues, continuous builds, and more. With these techniques, you can transform testing from a bottleneck into an accelerator–and make your whole organization more productive!

Grokking Artificial Intelligence Algorithms Apress

The never-more-necessary return of one of our most vital and eloquent voices on technology and culture, the author of the seminal Close to the Machine The last twenty years have brought us the rise of the internet, the development of artificial intelligence, the ubiquity of once unimaginably powerful computers, and the thorough transformation of our economy and society. Through it all, Ellen Ullman lived and worked inside that rising culture of technology, and in Life in Code she tells the continuing story of the changes it wrought with a unique, expert perspective. When Ellen Ullman moved to San Francisco in the early 1970s and went on to become a computer programmer, she was joining a small, idealistic, and almost exclusively male cadre that aspired to genuinely change the world. In 1997 Ullman wrote Close to the Machine, the now classic and still definitive account of life as a coder at the birth of what would be a sweeping technological, cultural, and financial revolution. Twenty years later, the story Ullman recounts is neither one of unbridled triumph nor a nostalgic denial of progress. It is necessarily the story of digital technology’s loss of innocence as it entered the cultural mainstream, and it is a personal reckoning with all that has changed, and so much that hasn’t. Life in Code is an essential text toward our understanding of the last twenty years—and the next twenty.

User Interface Design for Mere Mortals¿ Workman Publishing

Now available in paperback—with a new preface and interview with Jessica Livingston about Y Combinator! Founders at Work: Stories of Startups' Early Days is a collection of interviews with founders of famous technology companies about what happened in the very earliest days. These people are celebrities now. What was it like when they were just a couple friends with an idea? Founders like Steve Wozniak (Apple), Caterina Fake (Flickr), Mitch Kapor (Lotus), Max Levchin (PayPal), and Sabeer Bhatia (Hotmail) tell you in their own words about their surprising and often very funny discoveries as they learned how to build a company. Where did they get the ideas that made them rich? How did they convince investors to back them? What went wrong, and how did they recover? Nearly all technical people have thought of one day starting or working for a startup. For them, this book is the closest you can come to being a fly on the wall at a successful startup, to learn how it's done. But ultimately these interviews are required reading for anyone who wants to understand business, because startups are business reduced to its essence. The reason their founders become rich is that startups do what businesses do—create value—more intensively than almost any other part of the economy. How? What are the secrets that make successful startups so insanely productive? Read this book, and let the founders themselves tell you.