

The Practice Of Programming (Professional Computing)

If you're passionate about programming and want to get better at it, you've come to the right source. Code Craft author Pete Goodliffe presents a collection of useful techniques and approaches to the art and craft of programming that will help boost your career and your well-being. Goodliffe presents sound advice that he's learned in 15 years of professional programming. The book's standalone chapters span the range of a software developer's life—dealing with code, learning the trade, and improving performance—with no language or industry bias. Whether you're a seasoned developer, a neophyte professional, or a hobbyist, you'll find valuable tips in five independent categories: Code-level techniques for crafting lines of code, testing, debugging, and coping with complexity Practices, approaches, and attitudes: keep it simple, collaborate well, reuse, and create malleable code Tactics for learning effectively, behaving ethically, finding challenges, and avoiding stagnation Practical ways to complete things: use the right tools, know what “done” looks like, and seek help from colleagues Habits for working well with others, and pursuing development as a social activity

This open access book constitutes the proceedings of the 19th International Conference on Agile Software Development, XP 2018, held in Porto, Portugal, in May 2018. XP is the premier agile software development conference combining research and practice, and XP 2018 provided a playful and informal environment to learn and trigger discussions around its main theme – make, inspect, adapt. The 21 papers presented in this volume were carefully reviewed and selected from 62 submissions. They were organized in topical sections named: agile requirements; agile testing; agile transformation; scaling agile; human-centric agile; and continuous experimentation.

The second edition of this best-selling Python book (over 500,000 copies sold!) uses Python 3 to teach even the technically uninclined how to write programs that do in minutes what would take hours to do by hand. There is no prior programming experience required and the book is loved by liberal arts majors and geeks alike. If you've ever spent hours renaming files or updating hundreds of spreadsheet cells, you know how tedious tasks like these can be. But what if you could have your computer do them for you? In this fully revised second edition of the best-selling classic Automate the Boring Stuff with Python, you'll learn how to use Python to write programs that do in minutes what would take you hours to do by hand--no prior programming experience required. You'll learn the basics of Python and explore Python's rich library of modules for performing specific tasks, like scraping data off websites, reading PDF and Word documents, and automating clicking and typing tasks. The second edition of this international fan favorite includes a brand-new chapter on input validation, as well as tutorials on automating Gmail and Google Sheets, plus tips on automatically updating CSV files. You'll learn how to create programs that effortlessly perform useful feats of automation to:

- Search for text in a file or across multiple files
- Create, update, move, and rename files and folders
- Search the Web and download online content
- Update and format data in Excel spreadsheets of any size
- Split, merge, watermark, and encrypt PDFs
- Send email responses and text notifications
- Fill out online forms

Step-by-step instructions walk you through each program, and updated practice projects at the end of each chapter challenge you to improve those programs and use your newfound skills to automate similar tasks. Don't spend your time doing work a well-trained monkey could do. Even if you've never written a line of code, you can make your computer do the grunt work. Learn how in Automate the Boring Stuff with Python, 2nd Edition.

Brian Kernighan and Rob Pike have written The Practice of Programming to help make individual programmers more effective and productive. The practice of programming is more than just writing code. Programmers must also assess tradeoffs, choose among design alternatives, debug and test, improve performance, and maintain software written by themselves and others. At the same time, they must be concerned with issues like compatibility, robustness, and reliability, while meeting specifications. The Practice of Programming covers all these topics, and more. This book is full of practical advice and real-world examples in C, C++, Java, and a variety of special-purpose languages.

19th International Conference, XP 2018, Porto, Portugal, May 21 – 25, 2018, Proceedings

A Computer Science Reader

Code Craft

The Clean Coder

Drawing Programs: The Theory and Practice of Schematic Functional Programming

Essays on the Practice of Programming

What others in the trenches say about The Pragmatic Programmer... “The cool thing about this book is that it's great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there.” —Kent Beck, author of Extreme Programming Explained: Embrace Change “I found this book to be a great mix of solid advice and wonderful analogies!” —Martin Fowler, author of Refactoring and UML Distilled “I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost.” —Kevin Ruland, Management Science, MSG-Logistics “The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike.” —John Lakos, author of Large-Scale C++ Software Design “This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients.” —Eric Vought, Software Engineer “Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book.” —Pete McBreen, Independent Consultant “Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for

everyone who works with code for a living.” —Jared Richardson, Senior Software Developer, iRenaissance, Inc. “I would like to see this issued to every new employee at my company....” —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. “If I’m putting together a project, it’s the authors of this book that I want. . . . And failing that I’d settle for people who’ve read their book.” —Ward Cunningham Straight from the programming trenches, *The Pragmatic Programmer* cuts through the increasing specialization and technicalities of modern software development to examine the core process—taking a requirement and producing working, maintainable code that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, *The Pragmatic Programmer* illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

A guide to writing computer code covers such topics as variable naming, presentation style, error handling, and security.

An Introduction to Programming by the Inventor of C++ Preparation for Programming in the Real World The book assumes that you aim eventually to write non-trivial programs, whether for work in software development or in some other technical field. Focus on Fundamental Concepts and Techniques The book explains fundamental concepts and techniques in greater depth than traditional introductions. This approach will give you a solid foundation for writing useful, correct, maintainable, and efficient code. Programming with Today's C++ (C++11 and C++14) The book is an introduction to programming in general, including object-oriented programming and generic programming. It is also a solid introduction to the C++ programming language, one of the most widely used languages for real-world software. The book presents modern C++ programming techniques from the start, introducing the C++ standard library and C++11 and C++14 features to simplify programming tasks. For Beginners--And Anyone Who Wants to Learn Something New The book is primarily designed for people who have never programmed before, and it has been tested with many thousands of first-year university students. It has also been extensively used for self-study. Also, practitioners and advanced students have gained new insight and guidance by seeing how a master approaches the elements of his art. Provides a Broad View The first half of the book covers a wide range of essential concepts, design and programming techniques, language features, and libraries. Those will enable you to write programs involving input, output, computation, and simple graphics. The second half explores more specialized topics (such as text processing, testing, and the C programming language) and provides abundant reference material. Source code and support supplements are available from the author's website.

Engineering Software, the third volume in the landmark *Write Great Code* series by Randall Hyde, helps you create readable and maintainable code that will generate awe from fellow programmers. The field of software engineering may value team productivity over individual growth, but legendary computer scientist Randall Hyde wants to make promising programmers into masters of their craft. To that end, *Engineering Software*--the latest volume in Hyde's highly regarded *Write Great Code* series--offers his signature in-depth coverage of everything from development methodologies and strategic productivity to object-oriented design requirements and system documentation. You'll learn:

- Why following the software craftsmanship model can lead you to do your best work
- How to utilize traceability to enforce consistency within your documentation
- The steps for creating your own UML requirements with use-case analysis
- How to leverage the IEEE documentation standards to create better software

This advanced apprenticeship in the skills, attitudes, and ethics of quality software development reveals the right way to apply engineering principles to programming. Hyde will teach you the rules, and show you when to break them. Along the way, he offers illuminating insights into best practices while empowering you to invent new ones. Brimming with resources and packed with examples, *Engineering Software* is your go-to guide for writing code that will set you apart from your peers.

Think Like a Programmer

Information Assurance and Security Education and Training

The Practice of Prolog

The Elements of Programming Style

The Pragmatic Programmer

Pro .NET 2.0 Extreme Programming

**** Explains current Extreme Programming practices now that .NET 1.1 has matured; also explains how new features of .NET 2.0 impact Extreme Programming techniques. * Provides real-world examples of Extreme Programming practice, by examining the complete release of an example project, so developers can learn practical details and principles. * Shows developers how to use test-first development techniques for web-based applications using the NUnit testing framework within the Visual Studio .NET IDE, plus critical coverage of Nant, Net Mock and CruiseControl.NET.***

A Practical Guide & Mock Exam for the Programming, Planning & Practice (PPP) Division of the ARE Every July, NCARB begins to recreate the Architect Registration Examination (ARE) questions based on a new guide and scope. We always incorporate this latest information into our books. To become a licensed architect, you need to have a proper combination of education and/or experience, meet your Board of Architecture's special requirements, and pass all seven divisions of ARE. This book provides an ARE exam overview, suggested reference and resource links, exam prep and exam taking techniques, tips and guides, and a realistic and complete mock exam with solutions and explanations for the Programming, Planning & Practice (PPP) Division of the ARE. More specifically this book covers the following subjects: ARE, IDP, and Education Requirements ARE Exam Content, Format, and Prep Strategies Codes and Regulations Environmental, Social & Economic Issues Programming & Analysis Project Budget & Financing Project & Practice Management Site Zoning Two Graphic Vignettes with Step-By-Step Solutions Using the NCARB Practice Program Software Instructions on Installing Alternate DWG Files for Use with NCARB Software The mock exam includes 85 challenging questions of the same difficulty level and format as the real exam (multiple-choice, check-all-that-apply, and fill-in-the-blank), and two graphic vignettes. This book will help you pass the PPP division of the ARE and become a licensed architect! Can you study and pass the ARE Programming, Planning & Practice (PPP) Exam in 2 weeks? The answer is yes IF you study the right materials: If you have ZERO experience but read the right materials, you can pass with 2 weeks of prep. If you study our book, "Programming, Planning & Practice ARE Mock Exam," you have an excellent chance of studying and passing the ARE Programming, Planning & Practice (PPP) Exam in 2 weeks. We have added many tips and tricks that WILL help you pass the exam on your first try. Our goal is to take a very complicated subject and make it simple. "Programming, Planning & Practice ARE Mock Exam" will save you time and money and help you pass the exam on the first try! About the author Gang Chen holds a master's degree from the School of Architecture, University of Southern California (USC), Los Angeles, and a bachelor's degree from the School of Architecture, South China University of Technology. He has more than 20 years of professional experience. Many of the projects he was in charge of or participated in have been published extensively in Architecture, Architectural Record, The Los Angeles Times, The Orange County Register, and more. He has worked on a variety of unusual projects, including well-known, large-scale healthcare and hospitality projects with over one billion dollars in construction costs, award-winning school designs, highly-acclaimed urban design and streetscape projects, multifamily housing, high-end custom homes, and regional and neighborhood shopping centers. Gang Chen is a LEED AP BD+C and a licensed architect in California. He is also the internationally acclaimed author of other fascinating books, including Building Construction, Planting Design Illustrated, the ARE Mock Exam series, and the LEED Exam Guide series, which includes one guidebook for each of the LEED exams. For more information, visit www.GreenExamEducation.com

"To design future networks that are worthy of society's trust, we must put the 'discipline' of computer networking on a much stronger foundation. This book rises above the considerable minutiae of today's networking technologies to emphasize the long-standing mathematical underpinnings of the field." -Professor Jennifer Rexford, Department of Computer Science, Princeton University "This book is exactly the one I have been waiting for the last couple of years. Recently, I decided most students were already very familiar with the way the net works but were not being taught the fundamentals-the math. This book contains the knowledge for people who will create and understand future communications systems." -Professor Jon Crowcroft, The Computer Laboratory, University of Cambridge The Essential Mathematical Principles Required to Design, Implement, or Evaluate Advanced Computer Networks Students, researchers, and professionals in computer networking require a firm conceptual understanding of its foundations. Mathematical Foundations of Computer Networking provides an intuitive yet rigorous introduction to these essential mathematical principles and techniques. Assuming a basic grasp of calculus, this book offers sufficient detail to serve as the only reference many readers will need. Each concept is described in four ways: intuitively; using appropriate mathematical notation; with a numerical example carefully chosen for its relevance to networking; and with a numerical exercise for the reader. The first part of the text presents basic concepts, and the second part introduces four theories in a progression that has been designed to gradually deepen readers' understanding. Within each part, chapters are as self-contained as possible. The first part covers probability; statistics; linear algebra; optimization; and signals, systems, and transforms. Topics range from Bayesian networks to hypothesis testing, and eigenvalue computation to Fourier transforms. These preliminary chapters establish a basis for the four theories covered in the second part of the book: queueing theory, game theory, control theory, and information theory. The second part also demonstrates how mathematical concepts can be applied to issues such as contention for

limited resources, and the optimization of network responsiveness, stability, and throughput. "The fascinating story of how Unix began and how it took over the world. Brian Kernighan was a member of the original group of Unix developers, the creator of several fundamental Unix programs, and the co-author of classic books like "The C Programming Language" and "The Unix Programming Environment."--

Bad Programming Practices 101

Deep C Secrets

A Code of Conduct for Professional Programmers

Selections from ABACUS

Talking Directly to the Kernel and C Library

Programming

You know how to write code that works, but what about code that's well written and easy to understand? And robust and bug-free? If other programmers looked at your handiwork, would they be able to figure out the code's logic and purpose? Exceptional programmers have more than just technical know-how; they adopt the right approach and attitude to development. Code Craft will help take your programming beyond writing correct code to writing great code, thus turning you into a true programming professional or enhancing your existing professional skills. With language-agnostic advice that's relevant to all developers, Code Craft covers code-writing concerns such as presentation style, variable naming, error handling, and security. And it tackles broader, real-world programming issues like effective teamwork, development processes, and documentation. Each chapter ends with a Q&A section that reviews key concepts to get you thinking like an expert, making it an especially great reference for newer programmers who want to work professionally and efficiently as part of a team. This survival guide for the software factory will show you how to: –Write good code when the world's not helping you –Avoid disasters and distractions in the workplace –Assess your abilities accurately and determine ways to improve –Adopt productive attitudes and follow best practices There's little more valuable than the advice of a true, programming professional. You'll find Code Craft to be clear, practical, and entertaining throughout, and a great way to take your code (and your career) to the next level.

This book is broken into four primary sections addressing key topics that Linux programmers need to master: Linux nuts and bolts, the Linux kernel, the Linux desktop, and Linux for the Web Effective examples help get readers up to speed with building software on a Linux-based system while using the tools and utilities that contribute to streamlining the software development process Discusses using emulation and virtualization technologies for kernel development and application testing Includes useful insights aimed at helping readers understand how their applications code fits in with the rest of the software stack Examines cross-compilation, dynamic device insertion and removal, key Linux projects (such as Project Utopia), and the internationalization capabilities present in the GNOME desktop

Drawing Programs: The Theory and Practice of Schematic Functional Programming describes a diagrammatic (schematic) approach to programming. It introduces a sophisticated tool for programmers who would rather work with diagrams than with text. The language is a complete functional language that has evolved into a representation scheme that is unique. The result is a simple coherent description of the process of modelling with the computer. The experience of using this tool is introduced gradually with examples, small projects and exercises. The new computational theory behind the tool is interspersed between these practical descriptions so that the reasons for the activity can be understood and the activity, in turn, illustrates some elements of the theory Access to the tool, its source code and a set of examples that range from the simple to the complex is free (see www.springer.com/978-1-84882-617-5). A description of the tool's construction and how it may be extended is also given. The authors' experience with undergraduates and graduates who have the understanding and skill of a functional language learnt through using schema have also shown an enhanced ability to program in other computer languages. Readers are provided with a set of concepts that will ensure a good robust program design and, what is more important, a path to error free programming.

The real challenge of programming isn't learning a language's syntax—it's learning to creatively solve problems so you can build something great. In this one-of-a-kind text, author V. Anton Spraul breaks down the ways that programmers solve problems and teaches you what other introductory books often ignore: how to Think Like a Programmer. Each chapter tackles a single programming concept, like classes, pointers, and recursion, and open-ended exercises throughout challenge you to apply your knowledge. You'll also learn how to: –Split problems into discrete components to make them easier to solve –Make the most of code reuse with functions, classes, and libraries –Pick the perfect data structure for a particular job –Master more advanced programming tools like recursion and dynamic memory –Organize your thoughts and develop strategies to tackle particular types of problems Although the book's examples are written in C++, the creative problem-solving concepts they illustrate go beyond any particular language; in fact, they often reach outside the realm of computer science. As the most skillful programmers know, writing great code is a creative art—and the first step in creating your masterpiece is learning to Think Like a Programmer.

A Tour of C++

Write Great Code, Volume 3

Professional Linux Programming

Unix

Become a Better Coder by Learning How (Not) to Program The Practice of Programming

The C++11 standard allows programmers to express ideas more clearly, simply, and directly, and to write faster, more efficient code. Bjarne Stroustrup, the designer and original implementer of C++, thoroughly covers the details of this language and its use in his definitive reference, *The C++ Programming Language, Fourth Edition*. In *A Tour of C++*, Stroustrup excerpts the overview chapters from that complete reference, expanding and enhancing them to give an experienced programmer—in just a few hours—a clear idea of what constitutes modern C++. In this concise, self-contained guide, Stroustrup covers most major language features and the major standard-library components—not, of course, in great depth, but to a level that gives programmers a meaningful overview of the language, some key examples, and practical help in getting started. Stroustrup presents the C++ features in the context of the programming styles they support, such as object-oriented and generic programming. His tour is remarkably comprehensive. Coverage begins with the basics, then ranges widely through more advanced topics, including many that are new in C++11, such as move semantics, uniform initialization, lambda expressions, improved containers, random numbers, and concurrency. The tour ends with a discussion of the design and evolution of C++ and the extensions added for C++11. This guide does not teach you how to program (see Stroustrup's *Programming: Principles and Practice Using C++* for that); nor will it be the only resource you'll need for C++ mastery (see Stroustrup's *The C++ Programming Language, Fourth Edition*, for that). If, however, you are a C or C++ programmer wanting greater familiarity with the current C++ language, or a programmer versed in another language wishing to gain an accurate picture of the nature and benefits of modern C++, you can't find a shorter or simpler introduction than this tour provides.

This book constitutes the refereed proceedings of the 8th IFIP WG 11.8 World Conference on Security Education, WISE 8, held in Auckland, New Zealand, in July 2013. It also includes papers from WISE 6, held in Bento Gonçalves, Brazil, in July 2009 and WISE 7, held in Lucerne, Switzerland in June 2011. The 34 revised papers presented were carefully reviewed and selected for inclusion in this volume. They represent a cross section of applicable research as well as studies in security education.

A detailed introduction to the C programming language for experienced programmers. The world runs on code written in the C programming language, yet most schools begin the curriculum with Python or Java. *Effective C* bridges this gap and brings C into the modern era—covering the modern C17 Standard as well as potential C2x features. With the aid of this instant classic, you'll soon be writing professional, portable, and secure C programs to power robust systems and solve real-world problems. Robert C. Seacord introduces C and the C Standard Library while addressing best practices, common errors, and open debates in the C community. Developed together with other C Standards committee experts, *Effective C* will teach you how to debug, test, and analyze C programs. You'll benefit from Seacord's concise explanations of C language constructs and behaviors, and from his 40 years of coding experience. You'll learn:

- How to identify and handle undefined behavior in a C program
- The range and representations of integers and floating-point values
- How dynamic memory allocation works and how to use nonstandard functions
- How to use character encodings and types
- How to perform I/O with terminals and filesystems using C Standard streams and POSIX file descriptors
- How to understand the C compiler's translation phases and the role of the preprocessor
- How to test, debug, and analyze C programs

Effective C will teach you how to write professional, secure, and portable C code that will stand the test of time and help strengthen the foundation of the computing world.

How to build software tools using structured programming. Written using RATFOR (Rational FORTRAN); could be translated into other languages.

Becoming a Better Programmer

From Journeyman to Master

Build Reliable, Scalable Programs

Linux System Programming

Expert C Programming

An Introduction to Professional C Programming

The Go Programming Language is the authoritative resource for any programmer who wants to learn Go. It shows how to write clear and idiomatic Go to solve real-world problems. The book does not assume prior knowledge of Go nor experience with any specific language, so you'll find it accessible whether you're most comfortable with JavaScript, Ruby, Python, Java, or C++. The first chapter is a tutorial on the basic concepts of Go, introduced through programs for file I/O and text processing, simple graphics, and web clients and servers. Early chapters cover the structural elements of Go programs: syntax, control flow, data types, and the organization of a program into packages, files, and functions. The examples illustrate many packages from the standard library and show how to create new ones of your own. Later chapters explain the package mechanism in more detail, and how to build, test, and maintain projects using the go tool. The chapters on methods and interfaces introduce Go's unconventional approach to object-oriented programming, in which methods can be declared on any type and interfaces are implicitly satisfied. They explain the key principles of encapsulation, composition, and substitutability using realistic examples. Two chapters on concurrency present in-depth approaches to this increasingly important topic. The first, which covers the basic mechanisms of goroutines and channels, illustrates the style known as communicating sequential processes for which Go is renowned. The second covers more traditional aspects of concurrency with shared variables. These chapters provide a solid foundation for programmers encountering concurrency for the first time. The final two chapters explore lower-level features of Go. One covers the art of metaprogramming using reflection. The other shows how to use the unsafe package to step outside the type system for special situations, and how to use the cgo tool to create Go bindings for C libraries. The book features hundreds of interesting and practical examples of well-written Go code that cover the whole language, its most important packages, and a wide range of applications. Each chapter has exercises to test your understanding

and explore extensions and alternatives. Source code is freely available for download from <http://gopl.io/> and may be conveniently fetched, built, and installed using the go get command.

BPF and related observability tools give software professionals unprecedented visibility into software, helping them analyze operating system and application performance, troubleshoot code, and strengthen security. *BPF Performance Tools: Linux System and Application Observability* is the industry's most comprehensive guide to using these tools for observability. Brendan Gregg, author of the industry's definitive guide to system performance, introduces powerful new methods and tools for doing analysis that leads to more robust, reliable, and safer code. This authoritative guide: Explores a wide spectrum of software and hardware targets Thoroughly covers open source BPF tools from the Linux Foundation iovisor project's bcc and bpftrace repositories Summarizes performance engineering and kernel internals you need to understand Provides and discusses 150+ bpftrace tools, including 80 written specifically for this book: tools you can run as-is, without programming or customize and develop further, using diverse interfaces and the bpftrace front-end You'll learn how to use BPF (eBPF) tracing tools to analyze CPUs, memory, disks, file systems, networking, languages, applications, containers, hypervisors, security, and the Linux kernel. You'll move from basic to advanced tools and techniques, producing new metrics, stack traces, custom latency histograms, and more. It's like having a superpower: with Gregg's guidance and tools, you can analyze virtually everything that impacts system performance, so you can improve virtually any Linux operating system or application.

The essential guide to beginning your career in architecture *The Architecture Student's Handbook of Professional Practice* opens the door to the vast body of knowledge required to effectively manage architectural projects and practice. A professional architect is responsible for much more than design; this book is specifically designed to help prepare you for the business and administrative challenges of working in the real-world—whether you are a student or are just starting out in practice. It provides clear insight into the legal, financial, marketing, management, and administrative tasks and issues that are integral to keeping a firm running. This new edition has been restructured to be a companion textbook for students undertaking architectural practice classes, while also fulfilling the specific knowledge needs of interns and emerging professionals. It supplements information from the professional handbook with new content aimed at those setting out in the architectural profession and starting to navigate their careers. New topics covered in this new edition include: path to licensure, firm identity, professional development, strategic planning, and integrated project delivery. Whether you want to work at a top firm, strike out on your own, or start the next up-and-coming team, the business of architecture is a critical factor in your success. This book brings the fundamentals together to give you a one-stop resource for learning the reality of architectural practice. Learn the architect's legal and ethical responsibilities Understand the processes of starting and running your own firm Develop, manage, and deliver projects on time and on budget Become familiar with standard industry agreements and contracts Few architects were drawn to the profession by dreams of writing agreements and negotiating contracts, but those who excel at these everyday essential tasks impact their practice in innumerable ways. *The Architecture Student's Handbook of Professional Practice* provides access to the "nuts and bolts" that keep a firm alive, stable, and financially sound.

Software Development and Professional Practice reveals how to design and code great software. What factors do you take into account? What makes a good design? What methods and processes are out there for designing software? Is designing small programs different than designing large ones? How can you tell a good design from a bad one? You'll learn the principles of good software design, and how to turn those principles back into great code. *Software Development and Professional Practice* is also about code construction—how to write great programs and make them work. What, you say? You've already written eight gazillion programs! Of course I know how to write code! Well, in this book you'll re-examine what you already do, and you'll investigate ways to improve. Using the Java language, you'll look deeply into coding standards, debugging, unit testing, modularity, and other characteristics of good programs. You'll also talk about reading code. How do you read code? What makes a program readable? Can good, readable code replace documentation? How much documentation do you really need? This book introduces you to software engineering—the application of engineering principles to the development of software. What are these engineering principles? First, all engineering efforts follow a defined process. So, you'll be spending a bit of time talking about how you run a software development project and the different phases of a project. Secondly, all engineering work has a basis in the application of science and mathematics to real-world problems. And so does software development! You'll therefore take the time to examine how to design and implement programs that solve specific problems. Finally, this book is also about human-computer interaction and user interface design issues. A poor user interface can ruin any desire to actually use a program; in this book, you'll figure out why and how to avoid those errors. *Software Development and Professional Practice* covers many of the topics described for the ACM Computing Curricula 2001 course C292c *Software Development and Professional Practice*. It is designed to be both a textbook and a manual for the working professional.

Introducing Go

The Practice of Writing Excellent Code

The Art of Readable Code

The Self-taught Programmer

Engineering Software

A Handbook for People Who Care About Code

This compelling resource, which was first published in 1993, was the first book on facility programming to design parameters and specifications over a broad range of project types. The book's practical, how-to approach is exceedingly beneficial to professionals and students involved with a wide variety of building types – from corporate facilities, to parks, day care centres, health centres, and correctional facilities. It also covers the fine points of working with clients. The contributors provide real-world case studies, endowing the reader with the tools necessary to reap a deeper understanding and a more critical assessment of the major programming approaches today. *Professional Practice in Facility Programming* is a uniquely current, self-contained resource that will prove invaluable to a wide cross-section of practitioners and students.

Addressed to readers at different levels of programming expertise, The Practice of Prolog offers a departure from current books that focus on small programming examples requiring additional instruction in order to extend them to full programming projects. It shows how to design and organize moderate to large Prolog programs, providing a collection of eight programming projects, each with a particular application, and illustrating how a Prolog program was written to solve the application. These range from a simple learning program to designing a database for molecular biology to natural language generation from plans and stream data analysis. Leon Sterling is Associate Professor in the Department of Computer Engineering and Science at Case Western Reserve University. He is the coauthor, along with Ehud Shapiro, of The Art of Prolog. Contents: A Simple Learning Program, Richard O'Keefe. Designing a Prolog Database for Molecular Biology, Ewing Lusk, Robert Olson, Ross Overbeek, Steve Tuecke. Parallelizing a Pascal Compiler, Eran Gabber. PREDITOR: A Prolog-Based VLSI Editor, Peter B. Reintjes. Assisting Register Transfer Level Hardware Design, Paul Drongowski. Design and Implementation of a Partial Evaluation System, Arun Lakhotia, Leon Sterling. Natural Language Generation from Plans, Chris Mellish. Stream Data Analysis in Prolog, Stott Parker.

The Art of UNIX Programming poses the belief that understanding the unwritten UNIX engineering tradition and mastering its design patterns will help programmers of all stripes to become better programmers. This book attempts to capture the engineering wisdom and design philosophy of the UNIX, Linux, and Open Source software development community as it has evolved over the past three decades, and as it is applied today by the most experienced programmers. Eric Raymond offers the next generation of "hackers" the unique opportunity to learn the connection between UNIX philosophy and practice through careful case studies of the very best UNIX/Linux programs.

As programmers, we've all seen source code that's so ugly and buggy it makes our brain ache. And let's be honest, we've all written code like that. With this book, you'll learn to write code that's easy to read and understand. You'll have more fun and your coworkers will love you. The Art of Readable Code focuses on the nuts and bolts of programming, with simple and practical techniques you can use every time you sit down to write code. You'll find tips throughout the book, with easy-to-digest code examples, helpful illustrations, and cartoons for fun. Learn to pick variable names that are "dense with information" Organize your loops and conditionals so they're easy to understand Make your comments short and sweet Recognize when your code is doing too many things at once Write tests that are concise, but thorough Master the art of breaking hard problems into many smaller ones

Professional Software

Professional Practice in Facility Programming (Routledge Revivals)

Practical Programming for Total Beginners

Professional Pascal

BPF Performance Tools

Software Development and Professional Practice

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.

Covers Expression, Structure, Common Blunders, Documentation, & Structured Programming Techniques

Perfect for beginners familiar with programming basics, this hands-on guide provides an easy introduction to Go, the general-purpose programming language from Google. Author Caleb Doxsey covers the language's core features with step-by-step instructions and exercises in each chapter to help you practice what you learn. Go is a general-purpose programming language with a clean syntax and advanced features, including concurrency. This book provides the one-on-one support you need to get started with the language, with short, easily digestible chapters that build on one another. By the time you finish this book, not only will you be able to write real Go programs, you'll be ready to tackle advanced techniques. Jump into Go basics, including data types, variables, and control structures Learn complex types, such as slices, functions, structs, and interfaces Explore Go's core library and learn how to create your own package Write tests for your code by using the language's go test program Learn how to run programs concurrently with goroutines and channels Get suggestions to help you master the craft of programming

Don't miss this guide to building networked and distributed applications for UNIX® System V. Using many helpful examples, the author provides a solid introduction to networking and UNIX programming, plus information on the programming interfaces most important to building communication software in System V, such as STREAMS, the Transport Layer Interface library, Sockets, and Remote Procedure Calls. The book also explains how to write kernel-level communication software, including STREAMS drivers, modules, and multiplexors. A final chapter on SLIP is essential reading.

Software Tools

Agile Processes in Software Engineering and Extreme Programming

The Definitive Guide to Programming Professionally

UNIX System V Network Programming

The Go Programming Language

Effective C

UNIX, UNIX LINUX & UNIX TCL/TK. Write software that makes the most effective use of the Linux system, including the kernel and core system libraries. The majority of both Unix and Linux code is still written at the system level, and this book helps you focus on everything above the kernel, where applications such as Apache, bash, cp, vim, Emacs, gcc, gdb, glibc, ls, mv, and X exist. Written primarily for engineers looking to program at the low level, this updated edition of Linux System Programming gives you an understanding of core internals that makes for better code, no matter where it appears in the stack. -- Provided by publisher.

Software -- Programming Languages.

'One of the best software design books of all time' - BookAuthority Cory Althoff is a self-taught programmer. After a year of self-study, he learned to program well enough to land a job as a software engineer II at eBay. But once he got there, he realised he was severely under-prepared. He was overwhelmed by the amount of things he needed to know but hadn't learned. His journey learning to program, and his experience in first software engineering job were the inspiration for this book. This book is not just about learning to program, although you will learn to code. If you want to program professionally, it is not enough to learn to code; that is why, in addition to helping you learn to program, Althoff also cover the rest of the things you need to know to program

professionally that classes and books don't teach you. The Self-taught Programmer is a roadmap, a guide to take you from writing your first Python program to passing your first technical interview. The book is divided into five sections: 1. Learn to program in Python 3 and build your first program. 2. Learn object-oriented programming and create a powerful Python program to get you hooked. 3. Learn to use tools like Git, Bash and regular expressions. Then use your new coding skills to build a web scraper. 4. Study computer science fundamentals like data structures and algorithms. 5. Finish with best coding practices, tips for working with a team and advice on landing a programming job. You can learn to program professionally. The path is there. Will you take it? From the author I spent one year writing The Self-Taught Programmer. It was an exciting and rewarding experience. I treated my book like a software project. After I finished writing it, I created a program to pick out all of the code examples from the book and execute them in Python to make sure all 300+ examples worked properly. Then I wrote software to add line numbers and color to every code example. Finally, I had a group of 200 new programmers 'beta read' the book to identify poorly explained concepts and look for any errors my program missed. I hope you learn as much reading my book as I did writing it. Best of luck with your programming!

This book takes a humorous slant on the programming practice manual by reversing the usual approach: under the pretence of teaching you how to become the world's worst programmer who generally causes chaos, the book teaches you how to avoid the kind of bad habits that introduce bugs or cause code contributions to be rejected. Why be a code monkey when you can be a chaos monkey? OK, so you want to become a terrible programmer. You want to write code that gets vigorously rejected in review. You look forward to reading feedback plastered in comments like "WTF???". Even better, you fantasize about your bug-ridden changes sneaking through and causing untold chaos in the codebase. You want to build a reputation as someone who writes creaky, messy, error-prone garbage that frustrates your colleagues. Bad Programming Practices 101 will help you achieve that goal a whole lot quicker by teaching you an array of bad habits that will allow you to cause maximum chaos. Alternatively, you could use this book to identify those bad habits and learn to avoid them. The bad practices are organized into topics that form the basis of programming (layout, variables, loops, modules, and so on). It's been remarked that to become a good programmer, you must first write 10,000 lines of bad code to get it all out of your system. This book is aimed at programmers who have so far written only a small portion of that. By learning about poor programming habits, you will learn good practices. In addition, you will find out the motivation behind each practice, so you can learn why it is considered good and not simply get a list of rules. What You'll Learn Become a better coder by learning how (not) to program Choose your tools wisely Think of programming as problem solving Discover the consequences of a program's appearance and overall structure Explain poor use of variables in programs Avoid bad habits and common mistakes when using conditionals and loops See how poor error-handling makes for unstable programs Sidestep bad practices related specifically to object-oriented programming Mitigate the effects of ineffectual and inadequate bug location and testing Who This Book Is For Those who have some practical programming knowledge (can program in at least one programming language), but little or no professional experience, which they would like to quickly build up. They are either still undergoing training in software development, or are at the beginning of their programming career. They have at most 1-2 years of professional experience.

The Architecture Student's Handbook of Professional Practice

The Art of UNIX Programming

(PPP of Architect Registration Exam): ARE Overview, Exam Prep Tips, Multiple-Choice Questions and Graphic Vignettes, Solutions A

Mathematical Foundations of Computer Networking

Principles and Practice Using C++

8th IFIP WG 11.8 World Conference on Information Security Education, WISE 8, Auckland, New Zealand, July 8-10, 2013, Proceedings, WISE 7, Lucerne, Switzerland, June 9-10, 2011, and WISE 6, Bento Gonçalves, RS, Brazil, July 27-31, 2009, Revised Selected Papers

A Computer Science Reader covers the entire field of computing, from its technological status through its social, economic and political significance. The book's clearly written selections represent the best of what has been published in the first three-and-a-half years of ABACUS, Springer-Verlag's international quarterly journal for computing professionals. Among the articles included are: - U.S. versus IBM: An Exercise in Futility? by Robert P. Bigelow - Programmers: The Amateur vs. the Professional by Henry Ledgard - The Composer and the Computer by Lejaren Hiller - SDI: A Violation of Professional Responsibility by David L. Parnas - Who Invented the First Electronic Digital Computer? by Nancy Stern - Foretelling the Future by Adaptive Modeling by Ian H. Witten and John G. Cleary - The Fifth Generation: Banzai or Pie-in-the-Sky? by Eric A. Weiss This volume contains more than 30 contributions by outstanding and authoritative authors grouped into the magazine's regular categories: Editorials, Articles, Departments, Reports from Correspondents, and Features. A Computer Science Reader will be interesting and important to any computing professional or student who wants to know about the status, trends, and controversies in computer science today.

Programming, Planning and Practice ARE Mock Exam

Programming Practice

Automate the Boring Stuff with Python, 2nd Edition

An Introduction to Creative Problem Solving

A History and a Memoir