

The Self Taught Programmer The Definitive Guide To Programming Professionally

A leading educational thinker argues that the American university is stuck in the past -- and shows how we can revolutionize it for our era of constant change Our current system of higher education dates to the period from 1865 to 1925. It was in those decades that the nation's new universities created grades and departments, majors and minors, all in an attempt to prepare young people for a world transformed by the telegraph and the Model T. As Cathy N. Davidson argues in *The New Education*, this approach to education is wholly unsuited to the era of the gig economy. From the Ivy League to community colleges, she introduces us to innovators who are remaking college for our own time by emphasizing student-centered learning that values creativity in the face of change above all. *The New Education* ultimately shows how we can teach students not only to survive but to thrive amid the challenges to come.

"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, I 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."--Amazon.

Starting a career as a software engineer without a computer science degree is a long and difficult journey, Hasan Armstrong discovered this whilst attempting to switch from a career in

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healthcare to software engineering. He now works as a software engineer and incorporates all the lessons he has learnt in this book. This book will provide a roadmap to getting a job as a software engineer without a computer science degree, as well as providing solutions to the obstacles you may face along the way, like learning new programming languages, handling interview questions, negotiating job offers and much more. Through his youtube channel, Hasan has helped several thousands of people learn to code. What you will learn in this book? How to determine if a job as a software engineer is even for you? Should you become a front-end, backend or full stack software engineer? Mindsets and habits of software engineers who seek excellence. Programming topics you will need to learn and practice before you can start applying for software engineering roles. Practices to stay healthy, avoid burnout syndrome and remain happy and fulfilled as a self-taught software engineer. Increase the likelihood of landing a software engineering role, by creating a personal brand, a CV that stands out and finding companies you want to work for. Mindsets and habits of exceptional software engineers Interviewer asks "What kind of salary do you expect for this role?" - How should you reply? You've started working as a software engineer. How can you climb the career ladder? The dark side of working as a software engineer. How should you handle workplace politics, mental health issues and technical debt? We are keen to help you land a software engineering role and help you progress in that role. So if you want to know if software engineering is for you, in the process of learning to code or applying for software engineering roles this book is worth purchasing. ****Buy the paperback version of this book, and get the kindle version absolutely FREE****

The Go Programming Language is the authoritative resource for any programmer who wants

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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

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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.

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

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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.

Sams Teach Yourself Beginning Programming in 24 Hours, Second Edition explains the basics of programming in the successful 24-Hours format. The book begins with the absolute basics of programming: Why program? What tools to use? How does a program tell the computer what to do? It teaches readers how to program the computer and then moves on by exploring the some most popular programming languages in use. The author starts by introducing the reader to the Basic language and finishes with basic programming techniques for Java, C++, and others.

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

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colleagues Habits for working well with others, and pursuing development as a social activity 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

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Netscape/Mozilla hacker

Interested in developing embedded systems? Since they don't tolerate inefficiency, these systems require a disciplined approach to programming. This easy-to-read guide helps you cultivate a host of good development practices, based on classic software design patterns and new patterns unique to embedded programming. Learn how to build system architecture for processors, not operating systems, and discover specific techniques for dealing with hardware difficulties and manufacturing requirements. Written by an expert who's created embedded systems ranging from urban surveillance and DNA scanners to children's toys, this book is ideal for intermediate and experienced programmers, no matter what platform you use. Optimize your system to reduce cost and increase performance Develop an architecture that makes your software robust in resource-constrained environments Explore sensors, motors, and other I/O devices Do more with less: reduce RAM consumption, code space, processor cycles, and power consumption Learn how to update embedded code directly in the processor Discover how to implement complex mathematics on small processors Understand what interviewers look for when you apply for an embedded systems job "Making Embedded Systems is the book for a C programmer who wants to enter the fun (and lucrative) world of embedded systems. It's very well written—entertaining, even—and filled with clear illustrations." —Jack Ganssle, author and embedded system expert.

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Want to learn the Python language without slogging your way through how-to manuals? With *Head First Python*, you'll quickly grasp Python's fundamentals, working with the built-in data structures and functions. Then you'll move on to building your very own webapp, exploring database management, exception handling, and data wrangling. If you're intrigued by what you can do with context managers, decorators, comprehensions, and generators, it's all here. This second edition is a complete learning experience that will help you become a bonafide Python programmer in no time. Why does this book look so different? Based on the latest research in cognitive science and learning theory, *Head First Python* uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

You know how to code..but is it enough? Do you feel left out when other programmers talk about asymptotic bounds? Have you failed a job interview because you don't know computer science? The author, a senior developer at a major software company with a PhD in computer science, takes you through what you would have learned while earning a four-year computer science degree. Volume one covers the most frequently referenced topics, including algorithms and data structures, graphs, problem-solving techniques, and complexity theory. When you finish this book, you'll have the tools you need to hold your own with people who have - or expect you to have - a computer

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science degree.

-- 55% OFF For Bookstores! -- Are you looking for the PERFECT introduction into the world of coding? Want to uncover the secrets of Python, SQL, C++ and so much more? Are you looking for the ultimate guide to getting started with programming? Then this bundle is for you. Written with the beginner in mind, this incredible 7-in-1 book bundle brings you everything you need to know about programming. Packed with a ton of advice and step-by-step instructions on all the most popular and useful languages, you'll explore how even a complete beginner can get started with ease! Covering data science, Arduino, and even Raspberry pi, you'll learn the fundamentals of object-oriented programming, operators, variables, loops, classes, arrays, strings and so much more! Here's just a little of what you'll discover inside: Uncovering The Secrets of C++, C#, Python, SQL and More Breaking Down The Fundamentals of Data Science Understanding The Different Classes, Operations, and Data Types Fundamental Programming Skills That YOU Need To Know Tips and Tricks For Getting The Most out of Each Language The Best Strategies For Using Arduino and Raspberry Pi Common Errors and How To Troubleshoot Them And Much More! No matter your level of programming experience, this bundle uses step-by-step instructions and easy-to-follow advice so you can get the most out of programming. Explore these amazing languages, master the fundamentals of programming, and unleash your programming potential today! Buy it now and let your customers start their journey in programming!

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Get to grips with the building blocks of programming languages and get started on your programming journey without a computer science degree

Key Features

- Understand the fundamentals of a computer program and apply the concepts you learn to different programming languages
- Gain the confidence to write your first computer program
- Explore tips, techniques, and best practices to start coding like a professional programmer

Book Description

Learning how to code has many advantages, and gaining the right programming skills can have a massive impact on what you can do with your current skill set and the way you advance in your career. This book will be your guide to learning computer programming easily, helping you overcome the difficulties in understanding the major constructs in any mainstream programming language. Computer Programming for Absolute Beginners starts by taking you through the building blocks of any programming language with thorough explanations and relevant examples in pseudocode. You'll understand the relationship between computer programs and programming languages and how code is executed on the computer. The book then focuses on the different types of applications that you can create with your programming knowledge. You'll delve into programming constructs, learning all about statements, operators, variables, and data types. As you advance, you'll see how to control the flow of your programs using control structures and reuse your code using functions. Finally, you'll explore best practices that will help you write code like a pro. By the end of this book, you'll be prepared to learn any programming language and

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take control of your career by adding coding to your skill set. What you will learn Get to grips with basic programming language concepts such as variables, loops, selection and functions Understand what a program is and how the computer executes it Explore different programming languages and learn about the relationship between source code and executable code Solve problems using various paradigms such as procedural programming, object oriented programming, and functional programming Write high-quality code using several coding conventions and best practices Become well-versed with how to track and fix bugs in your programs Who this book is for This book is for beginners who have never programmed before and are looking to enter the world of programming. This includes anyone who is about to start studying programming and wants a head start, or simply wants to learn how to program on their own.

With this visual guide to computer programming for beginners, it has never been easier to learn how to code. Coding skills are in high demand and the need for programmers is still growing. Covering three of the most popular languages for new coders, this book uses a graphic method to break complex subjects into user-friendly chunks, bringing essential skills within easy reach. Each chapter contains tutorials on practical projects designed to teach you the main applications of each language, such as building websites, creating games, and designing apps. The book also looks at many of the main coding languages that are out there, outlining the key applications of each language, so you can choose the right language for you. You'll learn to think like a

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programmer by breaking a problem down into parts, before turning those parts into lines of code. Short, easy-to-follow steps then show you, piece by piece, how to build a complete program. There are challenges for you to tackle to build your confidence before moving on. Written by a team of expert coders and coding teachers, Beginner's Step-by-Step Coding Course is the ideal way to get to set you on the road to code. Do you think the programmers who work at your office are magical wizards who hold special powers that manipulate your computer? Believe it or not, anyone can learn how to write programs, and it doesn't take a higher math and science education to start. Beginning Programming for Dummies shows you how computer programming works without all the technical details or hard programming language. It explores the common parts of every computer programming language and how to write for multiple platforms like Windows, Mac OS X, or Linux. This easily accessible guide provides you with the tools you need to: Create programs and divide them into subprograms Develop variables and use constants Manipulate strings and convert them into numbers Use an array as storage space Reuse and rewrite code Isolate data Create a user interface Write programs for the Internet Utilize JavaScript and Java Applets In addition to these essential building blocks, this guide features a companion CD-ROM containing Liberty BASIC compiler and code in several languages. It also provides valuable programming resources and lets you in on cool careers for programmers. With Beginning Programming of Dummies, you can take charge of your computer and begin

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programming today!

Do you want to start to learn the main programming languages but are but are you frustrated at the idea that programming is difficult and complex for those who have never faced it? Ok, don't worry. This bundle was created for you! ? "The most difficult language is your first". There is this myth in the programming world's. I've been there too, learning any programming language can be frustrating and discouraging. I remember well the initial difficulties in learning my first programming language. Everything would have been easier if I had a guide that made me understand the real basics of programming. Today, the computer is an indispensable tool in many fields. However, the machine can do absolutely nothing without software, that is, without a program that tells you what you have to do. A programming language can be defined as an artificial language that allows the programmer to communicate with the computer to tell him what he has to do. To this end, man has invented many programming languages, but all of them can be classified into three main types: the machine, low level, and high level. This bundle takes you to the discovery of the main programming languages required in the world of work, starting from scratch. Book 1: Coding for beginners Start from here to learn the basics! This book covers: Getting Started with Coding Overview of the main programming languages Functions Strings Loops Object-Oriented Programming Algorithms... and so much more! Book 2: Coding with Python Learn one of the most popular programming language in the world! This book covers:

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What is Python? Why Python? How to Installing Python (Guide step by step) Python Basics Variables, Lists, Dictionaries, Functions... and so much more! Book 3: SQL programming for beginners SQL is the most universal and commonly used database language! This book covers: SQL to Work with Databases Why is SQL So Great Creating and exploring a Database Getting Started with Queries Subqueries SQL Views and Transactions Book 4: Coding HTML Learn the top three well-known markup languages HTML, JavaScript, and CSS This book covers: Fundamentals Of HTML HTML Styles All About Links, And Forms In HTML Frames, Colors, And Layout Of HTML Fundamentals of Javascript Fundamentals of CSS... and so much more! After reading this book, you will be more than just a beginner, and you will be able to use that to your benefit so that you can do everything from providing yourself with service to making a lucrative income. Are you ready to learn in a simple way?

'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

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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

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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-and-video package is the perfect introduction to Access 2010. Microsoft's popular Access database is the most popular database system in the world, and even if you have no database experience, this practical guide will soon have you getting the most out of the powerful new 2010 version. Step-by-step tutorials guide you through concepts and techniques at your own pace. Each lesson is followed by a Try It section, where you can practice what you're learning with exercises. The accompanying DVD provides clear, easy-to-follow videos of the author demonstrating each Try It problem, as well as extra commentary. Fully covers the new 2010 release of Microsoft Access Brings beginners thoroughly up to speed at their own pace Introduces exciting new Access 2010 features, such as creating Web forms to connect with SharePoint Helps users leverage macros and templates to streamline and customize projects If you want to get quickly up to speed on Access 2010, Access 2010 24-Hour Trainer is the perfect place to start.

In a perfect world, software engineers who produce the best code are the most successful. But in our perfectly messy world, success also depends on how you work with people to get your job done. In this highly entertaining book, Brian

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Fitzpatrick and Ben Collins-Sussman cover basic patterns and anti-patterns for working with other people, teams, and users while trying to develop software. This is valuable information from two respected software engineers whose popular series of talks—including "Working with Poisonous People"—has attracted hundreds of thousands of followers. Writing software is a team sport, and human factors have as much influence on the outcome as technical factors. Even if you've spent decades learning the technical side of programming, this book teaches you about the often-overlooked human component. By learning to collaborate and investing in the "soft skills" of software engineering, you can have a much greater impact for the same amount of effort. Team Geek was named as a Finalist in the 2013 Jolt Awards from Dr. Dobbs' Journal. The publication's panel of judges chose five notable books, published during a 12-month period ending June 30, that every serious programmer should read.

Get a comprehensive, in-depth introduction to the core Python language with this hands-on book. Based on author Mark Lutz's popular training course, this updated fifth edition will help you quickly write efficient, high-quality code with Python. It's an ideal way to begin, whether you're new to programming or a professional developer versed in other languages. Complete with quizzes, exercises, and helpful illustrations, this easy-to-follow, self-paced tutorial gets you

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started with both Python 2.7 and 3.3—the latest releases in the 3.X and 2.X lines—plus all other releases in common use today. You'll also learn some advanced language features that recently have become more common in Python code. Explore Python's major built-in object types such as numbers, lists, and dictionaries Create and process objects with Python statements, and learn Python's general syntax model Use functions to avoid code redundancy and package code for reuse Organize statements, functions, and other tools into larger components with modules Dive into classes: Python's object-oriented programming tool for structuring code Write large programs with Python's exception-handling model and development tools Learn advanced Python tools, including decorators, descriptors, metaclasses, and Unicode processing 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

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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

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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.
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BRIDGE THE GAP BETWEEN NOVICE AND PROFESSIONAL
You've completed a basic Python programming tutorial or finished Al Sweigart's bestseller, Automate the Boring Stuff with Python. What's the next step toward becoming a capable, confident software developer? Welcome to Beyond the Basic Stuff with Python. More than a mere collection of advanced syntax and

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masterful tips for writing clean code, you'll learn how to advance your Python programming skills by using the command line and other professional tools like code formatters, type checkers, linters, and version control. Sweigart takes you through best practices for setting up your development environment, naming variables, and improving readability, then tackles documentation, organization and performance measurement, as well as object-oriented design and the Big-O algorithm analysis commonly used in coding interviews. The skills you learn will boost your ability to program--not just in Python but in any language. You'll learn:

- Coding style, and how to use Python's Black auto-formatting tool for cleaner code
- Common sources of bugs, and how to detect them with static analyzers
- How to structure the files in your code projects with the Cookiecutter template tool
- Functional programming techniques like lambda and higher-order functions
- How to profile the speed of your code with Python's built-in timeit and cProfile modules
- The computer science behind Big-O algorithm analysis
- How to make your comments and docstrings informative, and how often to write them
- How to create classes in object-oriented programming, and why they're used to organize code

Toward the end of the book you'll read a detailed source-code breakdown of two classic command-line games, the Tower of Hanoi (a logic puzzle) and Four-in-a-Row (a two-player tile-dropping game), and a breakdown of how their

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code follows the book's best practices. You'll test your skills by implementing the program yourself. Of course, no single book can make you a professional software developer. But Beyond the Basic Stuff with Python will get you further down that path and make you a better programmer, as you learn to write readable code that's easy to debug and perfectly Pythonic Requirements: Covers Python 3.6 and higher

You Will Learn Python 3! Zed Shaw has perfected the world's best system for learning Python 3. Follow it and you will succeed—just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In Learn Python 3 the Hard Way, you'll learn Python by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code. Zed then teaches you even more in 5+ hours of video where he shows you how to break, fix, and debug your code—live, as he's doing the exercises. Install a complete Python environment Organize and write code Fix and break code Basic mathematics Variables Strings and text Interact with users Work with files Looping and logic Data structures using lists and dictionaries Program design

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Object-oriented programming Inheritance and composition Modules, classes, and objects Python packaging Automated testing Basic game development Basic web development It'll be hard at first. But soon, you'll just get it—and that will feel great! This course will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Python programmer. This Book Is Perfect For Total beginners with zero programming experience Junior developers who know one or two languages Returning professionals who haven't written code in years Seasoned professionals looking for a fast, simple, crash course in Python 3

Deep learning is often viewed as the exclusive domain of math PhDs and big tech companies. But as this hands-on guide demonstrates, programmers comfortable with Python can achieve impressive results in deep learning with little math background, small amounts of data, and minimal code. How? With fastai, the first library to provide a consistent interface to the most frequently used deep learning applications. Authors Jeremy Howard and Sylvain Gugger, the creators of fastai, show you how to train a model on a wide range of tasks using fastai and PyTorch. You'll also dive progressively further into deep learning theory to gain a complete understanding of the algorithms behind the scenes. Train models in computer vision, natural language processing, tabular data, and collaborative filtering Learn the latest deep learning techniques that matter most in practice Improve accuracy, speed, and reliability by understanding how deep learning models work Discover how to turn your models into web

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applications Implement deep learning algorithms from scratch Consider the ethical implications of your work Gain insight from the foreword by PyTorch cofounder, Soumith Chintala Erlang is the language of choice for programmers who want to write robust, concurrent applications, but its strange syntax and functional design can intimidate the uninitiated. Luckily, there's a new weapon in the battle against Erlang-phobia: Learn You Some Erlang for Great Good! Erlang maestro Fred Hébert starts slow and eases you into the basics: You'll learn about Erlang's unorthodox syntax, its data structures, its type system (or lack thereof!), and basic functional programming techniques. Once you've wrapped your head around the simple stuff, you'll tackle the real meat-and-potatoes of the language: concurrency, distributed computing, hot code loading, and all the other dark magic that makes Erlang such a hot topic among today's savvy developers. As you dive into Erlang's functional fantasy world, you'll learn about: –Testing your applications with EUnit and Common Test –Building and releasing your applications with the OTP framework –Passing messages, raising errors, and starting/stopping processes over many nodes –Storing and retrieving data using Mnesia and ETS –Network programming with TCP, UDP, and the inet module –The simple joys and potential pitfalls of writing distributed, concurrent applications Packed with lighthearted illustrations and just the right mix of offbeat and practical example programs, Learn You Some Erlang for Great Good! is the perfect entry point into the sometimes-crazy, always-thrilling world of Erlang.

See all the things coding can accomplish The demand for people with coding know-how exceeds the number of people who understand the languages that power technology. Coding All-in-One For Dummies gives you an ideal place to start when you're ready to add this

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valuable asset to your professional repertoire. Whether you need to learn how coding works to build a web page or an application or see how coding drives the data revolution, this resource introduces the languages and processes you'll need to know. Peek inside to quickly learn the basics of simple web languages, then move on to start thinking like a professional coder and using languages that power big applications. Take a look inside for the steps to get started with updating a website, creating the next great mobile app, or exploring the world of data science. Whether you're looking for a complete beginner's guide or a trusted resource for when you encounter problems with coding, there's something for you! Create code for the web Get the tools to create a mobile app Discover languages that power data science See the future of coding with machine learning tools With the demand for skilled coders at an all-time high, Coding All-in-One For Dummies is here to propel coding newbies to the ranks of professional programmers.

The Self-Taught Computer Scientist is Cory Althoff's follow-up to The Self-Taught Programmer, which inspired hundreds of thousands of professionals to learn how to program outside of school. In The Self-Taught Programmer, Cory showed readers why you don't need a computer science degree to program professionally and taught the programming fundamentals he used to go from a complete beginner to a software engineer at eBay without one. In The Self-Taught Computer Scientist, Cory teaches you the computer science concepts that all self-taught programmers should understand to have outstanding careers. The Self-Taught Computer Scientist will not only make you a better programmer; it will also help you pass your technical interview: the interview all programmers have to pass to land a new job. Whether you are preparing to apply for jobs or sharpen your computer science knowledge, reading The Self-

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Taught Computer Scientist will improve your programming career. It's written for complete beginners, so you should have no problem reading it even if you've never studied computer science before.

Widely considered one of the best practical guides to programming, Steve McConnell's original `CODE COMPLETE` has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code. Discover the timeless techniques and strategies that help you: Design for minimum complexity and maximum creativity Reap the benefits of collaborative development Apply defensive programming techniques to reduce and flush out errors Exploit opportunities to refactor—or evolve—code, and do it safely Use construction practices that are right-weight for your project Debug problems quickly and effectively Resolve critical construction issues early and correctly Build quality into the beginning, middle, and end of your project

Based on Big Nerd Ranch's popular iPhone Bootcamp class, *iPhone Programming: The Big Nerd Ranch Guide* leads you through the essential tools and techniques for developing applications for the iPhone, iPad, and iPod Touch. In each chapter, you will learn programming concepts and apply them immediately as you build an application or enhance one from a

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previous chapter. These applications have been carefully designed and tested to teach the associated concepts and to provide practice working with the standard development tools Xcode, Interface Builder, and Instruments. The guide's learn-while-doing approach delivers the practical knowledge and experience you need to design and build real-world applications. Here are some of the topics covered: Dynamic interfaces with animation Using the camera and photo library User location and mapping services Accessing accelerometer data Handling multi-touch gestures Navigation and tabbed applications Tables and creating custom rows Multiple ways of storing and loading data: archiving, Core Data, SQLite Communicating with web services ALocalization/Internationalization "After many 'false starts' with other iPhone development books, these clear and concise tutorials made the concepts gel for me. This book is a definite must have for any budding iPhone developer." –Peter Watling, New Zealand, Developer of BubbleWrap

Want a career as a software engineer? Don't want to spend years or the money going to school? Have to write code for your current job? The lessons in this book are all things author Tommy Chheng learned are vital to developers during his career. This book will teach you: *

- * What tools you will need
- * How to ask the right questions
- * How to solve a programming problem
- * The important Computer Science topics
- * How to get hired

Summary Grokking Algorithms is a fully illustrated, friendly guide that teaches you how to apply common algorithms to the practical problems you face every day as a programmer. You'll start with sorting and searching and, as you build up your skills in thinking algorithmically, you'll tackle more complex concerns such as data compression and artificial intelligence. Each carefully presented example includes helpful diagrams and fully annotated code samples in

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Python. Learning about algorithms doesn't have to be boring! Get a sneak peek at the fun, illustrated, and friendly examples you'll find in *Grokking Algorithms* on Manning Publications' YouTube channel. Continue your journey into the world of algorithms with *Algorithms in Motion*, a practical, hands-on video course available exclusively at Manning.com (www.manning.com/livevideo/algorithms-?in-motion). Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the Technology An algorithm is nothing more than a step-by-step procedure for solving a problem. The algorithms you'll use most often as a programmer have already been discovered, tested, and proven. If you want to understand them but refuse to slog through dense multipage proofs, this is the book for you. This fully illustrated and engaging guide makes it easy to learn how to use the most important algorithms effectively in your own programs.

About the Book *Grokking Algorithms* is a friendly take on this core computer science topic. In it, you'll learn how to apply common algorithms to the practical programming problems you face every day. You'll start with tasks like sorting and searching. As you build up your skills, you'll tackle more complex problems like data compression and artificial intelligence. Each carefully presented example includes helpful diagrams and fully annotated code samples in Python. By the end of this book, you will have mastered widely applicable algorithms as well as how and when to use them.

What's Inside Covers search, sort, and graph algorithms Over 400 pictures with detailed walkthroughs Performance trade-offs between algorithms Python-based code samples

About the Reader This easy-to-read, picture-heavy introduction is suitable for self-taught programmers, engineers, or anyone who wants to brush up on algorithms.

About the Author Aditya Bhargava is a Software Engineer with a dual background in Computer Science and Fine

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Arts. He blogs on programming at adit.io. Table of Contents Introduction to algorithms Selection sort Recursion Quicksort Hash tables Breadth-first search Dijkstra's algorithm Greedy algorithms Dynamic programming K-nearest neighbors Sharpen your coding skills by exploring established computer science problems! Classic Computer Science Problems in Java challenges you with time-tested scenarios and algorithms. Summary Sharpen your coding skills by exploring established computer science problems! Classic Computer Science Problems in Java challenges you with time-tested scenarios and algorithms. You'll work through a series of exercises based in computer science fundamentals that are designed to improve your software development abilities, improve your understanding of artificial intelligence, and even prepare you to ace an interview. As you work through examples in search, clustering, graphs, and more, you'll remember important things you've forgotten and discover classic solutions to your "new" problems! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Whatever software development problem you're facing, odds are someone has already uncovered a solution. This book collects the most useful solutions devised, guiding you through a variety of challenges and tried-and-true problem-solving techniques. The principles and algorithms presented here are guaranteed to save you countless hours in project after project. About the book Classic Computer Science Problems in Java is a master class in computer programming designed around 55

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exercises that have been used in computer science classrooms for years. You'll work through hands-on examples as you explore core algorithms, constraint problems, AI applications, and much more. What's inside Recursion, memoization, and bit manipulation Search, graph, and genetic algorithms Constraint-satisfaction problems K-means clustering, neural networks, and adversarial search About the reader For intermediate Java programmers. About the author David Kopec is an assistant professor of Computer Science and Innovation at Champlain College in Burlington, Vermont. Table of Contents 1 Small problems 2 Search problems 3 Constraint-satisfaction problems 4 Graph problems 5 Genetic algorithms 6 K-means clustering 7 Fairly simple neural networks 8 Adversarial search 9 Miscellaneous problems 10 Interview with Brian Goetz

For most software developers, coding is the fun part. The hard bits are dealing with clients, peers, and managers and staying productive, achieving financial security, keeping yourself in shape, and finding true love. This book is here to help. *Soft Skills: The Software Developer's Life Manual* is a guide to a well-rounded, satisfying life as a technology professional. In it, developer and life coach John Sonmez offers advice to developers on important subjects like career and productivity, personal finance and investing, and even fitness and relationships. Arranged as a collection of 71 short chapters, this fun listen invites you to dip in wherever you like. A "Taking Action" section at the end of each chapter tells you how to get quick results. *Soft Skills* will help make

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you a better programmer, a more valuable employee, and a happier, healthier person. You know how to code... ..but is it enough? Do you feel left out when other programmers talk about asymptotic bounds? Have you failed a job interview because you don't know computer science? Volume two picks up where volume one left off, covering proofs, security, hardware and software, and various advanced topics. You've learned the basics. Are you ready for what comes next?

When you write software, you need to be at the top of your game. Great programmers practice to keep their skills sharp. Get sharp and stay sharp with more than fifty practice exercises rooted in real-world scenarios. If you're a new programmer, these challenges will help you learn what you need to break into the field, and if you're a seasoned pro, you can use these exercises to learn that hot new language for your next gig. One of the best ways to learn a programming language is to use it to solve problems. That's what this book is all about. Instead of questions rooted in theory, this book presents problems you'll encounter in everyday software development. These problems are designed for people learning their first programming language, and they also provide a learning path for experienced developers to learn a new language quickly. Start with simple input and output programs. Do some currency conversion and figure out how many months it takes to pay off a credit card. Calculate blood alcohol content and determine if it's safe to drive. Replace words in files and filter records, and use web services to display the weather, store data, and show how many people are in space

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right now. At the end you'll tackle a few larger programs that will help you bring everything together. Each problem includes constraints and challenges to push you further, but it's up to you to come up with the solutions. And next year, when you want to learn a new programming language or style of programming (perhaps OOP vs. functional), you can work through this book again, using new approaches to solve familiar problems. What You Need: You need access to a computer, a programming language reference, and the programming language you want to use.

"Early in his software developer career, John Sonmez discovered that technical knowledge alone isn't enough to break through to the next income level - developers need "soft skills" like the ability to learn new technologies just in time, communicate clearly with management and consulting clients, negotiate a fair hourly rate, and unite teammates and coworkers in working toward a common goal. Today John helps more than 1.4 million programmers every year to increase their income by developing this unique blend of skills. Who Should Read This Book? Entry-Level Developers - This book will show you how to ensure you have the technical skills your future boss is looking for, create a resume that leaps off a hiring manager's desk, and escape the "no work experience" trap. Mid-Career Developers - You'll see how to find and fill in gaps in your technical knowledge, position yourself as the one team member your boss can't live without, and turn those dreaded annual reviews into chance to make an iron-clad case for your salary bump. Senior Developers - This book will show you how to become

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a specialist who can command above-market wages, how building a name for yourself can make opportunities come to you, and how to decide whether consulting or entrepreneurship are paths you should pursue. Brand New Developers - In this book you'll discover what it's like to be a professional software developer, how to go from "I know some code" to possessing the skills to work on a development team, how to speed along your learning by avoiding common beginner traps, and how to decide whether you should invest in a programming degree or 'bootcamp.'"

I am a self-taught programmer. After a year of self-study, I learned to program well enough to land a job as a software engineer II at eBay. Once I got there, I realized I was severely under-prepared. I was overwhelmed by the amount of things I needed to know but hadn't learned yet. My journey learning to program, and my experience at my first job as a software engineer 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, I 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. I divided the book into six 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,

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Bash, regular expressions and databases. Then use your new coding skills to build a web scraper. 4. Study Computer Science fundamentals including computer architecture, data structures, algorithms and network programming. 5. Learn to program for production: I cover the software development process, testing, and best coding practices. 6. Finish with tips for working with a team and landing a programming job. You CAN learn to program professionally. The path is there. Will you take it?

Don't have a CS degree? Neither does Rob. That's why he wrote this book: to fill the gaps in his career. The result? Over 450 pages of essentials skills and ideas every developer should know with illustrations by the author, who loves to sketch. An illustrated CS Primer, if you will. Rob is a self-taught software developer (like so many) and for most of his career he learned what was required to get the job done. When conversations veered toward core concepts, he disengaged. Rob decided to change all of this in 2014. He sat down and looked up all of the topics that a typical CS degree covers and then dove in. Half way through, he decided to write a book about what he was learning. That book is *The Imposter's Handbook*, a compendium of useful programming concepts from Algorithms to Complexity Theory, TDD to Garbage Collection. Things you should really know if you're paid to write software.

Python for Everybody is designed to introduce students to programming and software development through the lens of exploring data. You can think of the Python programming language as your tool to solve data problems that are beyond the

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capability of a spreadsheet. Python is an easy to use and easy to learn programming language that is freely available on Macintosh, Windows, or Linux computers. So once you learn Python you can use it for the rest of your career without needing to purchase any software. This book uses the Python 3 language. The earlier Python 2 version of this book is titled "Python for Informatics: Exploring Information". There are free downloadable electronic copies of this book in various formats and supporting materials for the book at www.pythonlearn.com. The course materials are available to you under a Creative Commons License so you can adapt them to teach your own Python course.

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