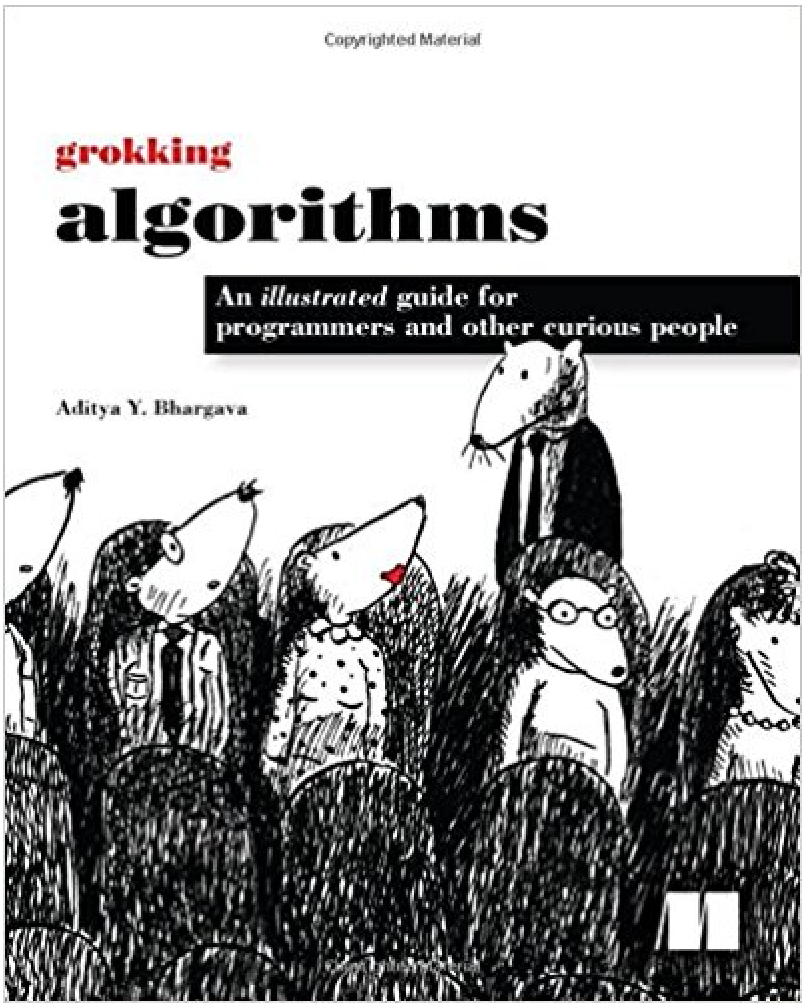
Grokking Algorithms: An Illustrated Guide For Programmers And Other Curious People



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grokking
algorithms

An illustrated guide for programmers and other curious people

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Synopsis

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 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.Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.About the TechnologyAn 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 BookGrokking 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 InsideCovers search, sort, and graph algorithmsOver 400 pictures with detailed walkthroughsPerformance trade-offs between algorithmsPython-based code samplesAbout the ReaderThis easy-to-read, picture-heavy introduction is suitable for self-taught programmers, engineers, or anyone who wants to brush up on algorithms.About the AuthorAditya Bhargava is a Software Engineer with a dual background in Computer Science and Fine Arts. He blogs on programming at adit.io.Table of ContentsIntroduction to algorithmsSelection sortRecursionQuicksortHash tablesBreadth-first searchDijkstra’s algorithmGreedy algorithmsDynamic programmingK-nearest neighbors

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Customer Reviews

View larger   View larger   Who Should Read This Book   This book is aimed at anyone who knows the basics of coding and wants to understand algorithms. Maybe you already have a coding problem and are trying to find an algorithmic solution. Or maybe you want to understand what algorithms are useful for. HereÃ¢Â Â™s a short, incomplete list of people who will probably find this book useful: Hobbyist coders   Coding boot camp students   Computer science grads looking for a refresher   Physics/math/other grads who are interested in programming   About this Book   This book is designed to be easy to follow. I avoid big leaps of thought. Any time a new concept is introduced, I explain it right away or tell you when IÃ¢Â Â™ll explain it. Core concepts are reinforced with exercises and multiple explanations so that you can check your assumptions and make sure youÃ¢Â Â™re following along.   I lead with examples. Instead of writing symbol soup, my goal is to make it easy for you to visualize these concepts. I also think we learn best by being able to recall something we already know, and examples make recall easier. So when youÃ¢Â Â™re trying to remember the difference between arrays and linked lists (explained in chapter 2), you can just think about getting seated for a movie. Also, at the risk of stating the obvious, IÃ¢Â Â™m a visual learner. This book is chock-full of images.   The contents of the book are carefully curated. ThereÃ¢Â Â™s no need to write a book that covers every sorting algorithmÃ¢Â Â”thatÃ¢Â Â™s why we have Wikipedia and Khan Academy. All the algorithms IÃ¢Â Â™ve included are practical. IÃ¢Â Â™ve found them useful in my job as a software engineer, and they provide a good foundation for more complex topics. Happy reading!

Aditya Bhargava is a Software Engineer with a dual background in Computer Science and Fine Arts. He blogs about programming at adit.io.

I’m not big on rating things, but I had to for this amazing book. This is by far the best introduction to algorithms out there, especially if you have not encountered them before. If you’re a dev new to coding from some other field and lack a CS background, start here. If you are a VISUAL LEARNER, start here. If you like light, easy text to get acquainted with an idea, start here. If you want to learn the basics and learn them well, start here. After you read this book you’ll be ready for the more dense ones.

This book has a very light, non-academic approach that appears to be more informal, but I think it serves as a good introduction to a handful of the most essential algorithms and data structures. The majority of the book is made up of cartoon-like drawings by the author. I think they are helpful but it’s probably a love-hate thing. Overall, I think the topics, while lacking detail, are explained well. This is not a book that you want to get to study algorithms in-depth, but it’s a good, solid, and enjoyable introduction to this field. I would definitely recommend it to absolute beginners.

Couldn’t be more pleased to have found and picked up this book through . I started with an keen interest and somewhat mediocre background knowledge into algorithms. Can say after having looked at a few different resources online trying to get a handle on things, that some concepts were still hard to find sticking.Overall Ã¢Â Â“ it took me short of a week to get through the text, and I can honestly say that I feel a great sense now of how all things come together. An amazing intro the deeper depths of CS, and even greater teaser into what is machine learning. Bravo!

Phenomenal book with fantastic illustrations. For those who are more of a visual learner, this book won’t disappoint when it comes to the fundamentals of algorithms. Great read!

Great resource for those looking for a quick primer on algorithms. Even though coding the examples is more than half the fun, I firmly believe even a person with zero programming experience would be able to follow through the brilliant explanations.Binding sucks though.

"Grokking Algorithms: An illustrated guide for programmers and other curious people" does just what the subtitle implies. It gives simple, down-to-earth examples to clearly explain some of the most common algorithms. It then goes on to provided code examples in Python, a clean programming language which can be downloaded for free so you can try out the examples without investing a lot of money for a commercial compiler. Overall, I thoroughly enjoyed reading this book and learning the concepts therein.

Started loaning it out as soon as I finished it. Wonderful introduction to algorithms!

This book is the perfect companion to any main textbook for an algorithms course. Gives students all the overview they need before the implementation details in a particular language. Great examples and illustrations. The writing is excellent. Code examples are in Python.

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