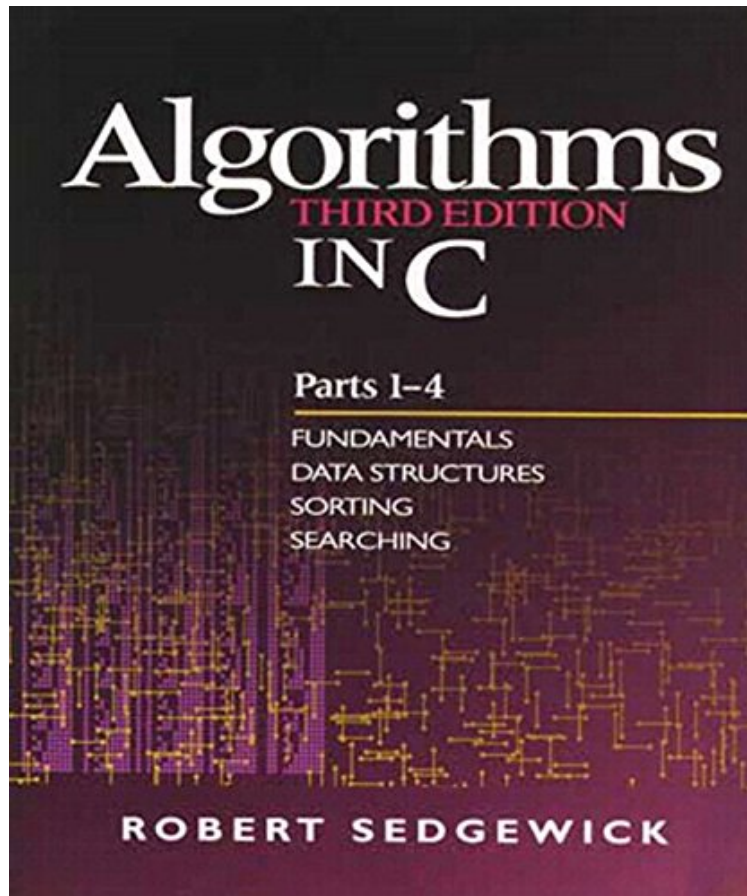


[Free download] Algorithms in C, Parts 1-4: Fundamentals, Data Structures, Sorting, Searching: Fundamentals, Data Structures, Sorting, Searching

Algorithms in C, Parts 1-4: Fundamentals, Data Structures, Sorting, Searching: Fundamentals, Data Structures, Sorting, Searching

Von Robert Sedgewick

**Download PDF | ePub | DOC | audiobook | ebooks*



 Download

 Read Online

Produktinformation -Verkaufsrang: #250780 in eBooksVerffentlicht am: 1997-08-22Erscheinungsdatum: 1997-08-22File Name: B010TQKZ2M | File size: 22.Mb

Von Robert Sedgewick : Algorithms in C, Parts 1-4: Fundamentals, Data Structures, Sorting, Searching: Fundamentals, Data Structures, Sorting, Searching before purchasing it in order to gage whether or not it would be worth my time, and all praised Algorithms in C, Parts 1-4: Fundamentals, Data Structures, Sorting, Searching: Fundamentals, Data Structures, Sorting, Searching:

KundenrezensionenHilfreichste Kundenrezensionen1 von 1 Kunden fanden die folgende Rezension hilfreich. Why do people like this book?Von Ein KundeIt is strange to me why some people love this book so much. Admittedly, Sedgewick is very respected in his field and knows a lot about sorting algorithms, but his book is still dissapointing and very frustrating to read for a beginning computer science student. He seldom includes complete code in his examples, and where there is code, there are sometimes errors in the code.This reviewer took Sedgewick's class at

Princeton University where this book was the required text, and not only was the text poor, his lectures were terribly boring. He himself even recognized that there were errors in his book, and so he allowed his students and TA's to submit errors found in the book. At the end of the year, the list of references to mistakes in the book took up more than three pages. This review is not the result of a student upset about his grade (an A is fine with me), but is rather an attempt to warn students about the potential pitfalls that may be encountered in reading Sedgewick's book. I suppose this could be a great book for an intermediate or advanced CS student who doesn't mind the sparse and sometimes erroneous code or the terse language used to describe fairly complex ideas. Also, there are some parts of the book that are well written and a pleasure to read. However, I would never recommend this book to anyone interested in learning algorithms for this first time without a fair amount of prior programming experience.

0 von 0 Kunden fanden die folgende Rezension hilfreich. A good overview of algorithms... Von Jonathan Neve I haven't been into algorithms and such things for very long, and yet I find that, with a bit of patience and good will, it's not that hard to understand, contrary to some other review. Of course, it's a long book, but then, if you can't be perseverant enough to read such a book, the best solution is just to stay home and do something else! If you want the information given in the book, you're jolly well going to have to read it! I found this book a very good introduction to algorithms. Of course, as it's a very vast subject, some things were not covered quite as much as some may desire, but this book studies sorting and searching very extensively, as well as string matching, geometric and mathematical algorithms. It also talks about other subjects such as cryptography, data compression, etc, but these are less explained. At any rate, for such subjects as are not fully detailed (in fact, for all subjects), there are references to other books upon the subject. I think this is a very good book to begin with, because it reaches a compromise between completeness and rigorous mathematical dealing of subjects on the one hand, and readability on the other. It gives explanations about the fundamentals of algorithmics, gives and extensively explains the basic, widely used algorithms, while giving the beginner a view of a wide variety of other subjects, which he can then further investigate if he so desires. After a book such as this, one could very well go onto very advanced algorithmic topics in some very specific field. And yet, again, it leads you through it step by step so that it is fully available to the motivated reader.

0 von 0 Kunden fanden die folgende Rezension hilfreich. Exceptional love for fine detail of highest quality Von Thomas H There are many books about algorithms, just a few can impress and influence people acting on the very threshold between theoretical research and development of complex software. Robert Sedgewick codes very carefully. Some readers might even fail to recognize the fine details in his code. Try to analyse even the simplest 2-3 liners. Compare the program 4.5 (Linked list implementation of a pushdown stack) or 4.10 (FIFO queue linked list implementation) to similar examples given by lesser authors, figure out the percentage of redundant code given by others compared to this examples (it is 50% to 300% faster for these elementary cases!). Another example: Look at the insertion sort with a sentinel. I am not aware of any other book showing this simple improvement. Also none of the insertion sorts which I saw in the practice use this so tiny add-on sentinel to achieve the quite dramatic speedup of the process. Naturally, in the time of 700MHz processors here and there a couple of extra instructions might appear unimportant, but I disagree. This is a book showing the basic algorithmics and programming practices in their best, down to the "two liners", regardless what the complexity of the task is. These little "pearls" of coding are in the real world running countless times behind the scenes and are important. Look carefully, learn, master to code as he does! As a very modern text, this is one of the few books dealing at least with some of the newer algorithms, like the skip lists or sorting networks. Not enough, though. Maybe we will see more in the next volume. There are also some omissions of the basic algorithms, which I would expect to be in such a book. See the rather terse chapter 7.8 about selection methods and look into Cormen, Leiserson, Rivest to see what I mean. Despite such complaints, in my eyes this book occupies the world's top-level rank among texts about algorithms for people who really make software and not just call library functions. I cannot wait to get my hands on the next volume being in preparation. My (standard) point of criticism is that too many exercises are without answers and actually some of them are so complex that a nice chapter with yet some more algorithms would be in place. But almost every book about algorithms has this fault. On the end of a chapter you often see: Improve this, solve that. It's not good enough for a practitioner but it serves purpose for students. Extraordinary are the illustrations of algorithm visualizations which I like so much in this book. My tribute to the author to NOT to use the questionable quotes of famous people on the begin of each chapter, as it lately became an annoying habit. One of the worse examples of such a quote were the alleged words of Albert Einstein "make it as simple as possible but not simpler" placed in a book about C++ (what is a contradiction in itself and quite a presumption on authors part putting himself on a pedestal with... Einstein.) But exactly such a quote might almost be applied to this text. Congratulations Mr. Sedgewick!

Kurzbeschreibung Robert Sedgewick has thoroughly rewritten and substantially expanded his popular work to provide current and comprehensive coverage of important algorithms and data structures. Many new algorithms are presented, and the explanations of each algorithm are much more detailed than in previous editions. A new text design and detailed, innovative figures, with accompanying commentary, greatly enhance the presentation. The third edition

retains the successful blend of theory and practice that has made Sedgewick's work an invaluable resource for more than 250,000 programmers! This particular book, Parts 1-4, represents the essential first half of Sedgewick's complete work. It provides extensive coverage of fundamental data structures and algorithms for sorting, searching, and related applications. The algorithms and data structures are expressed in concise implementations in C, so that you can both appreciate their fundamental properties and test them on real applications. Of course, the substance of the book applies to programming in any language. Highlights Expanded coverage of arrays, linked lists, strings, trees, and other basic data structures Greater emphasis on abstract data types (ADTs) than in previous editions Over 100 algorithms for sorting, selection, priority queue ADT implementations, and symbol table ADT (searching) implementations New implementations of binomial queues, multiway radix sorting, Batcher's sorting networks, randomized BSTs, splay trees, skip lists, multiway tries, and much more Increased quantitative information about the algorithms, including extensive empirical studies and basic analytic studies, giving you a basis for comparing them Over 1000 new exercises to help you learn the properties of algorithms Whether you are a student learning the algorithms for the first time or a professional interested in having up-to-date reference material, you will find a wealth of useful information in this book.

Kurzbeschreibung Robert Sedgewick has thoroughly rewritten and substantially expanded his popular work to provide current and comprehensive coverage of important algorithms and data structures. Many new algorithms are presented, and the explanations of each algorithm are much more detailed than in previous editions. A new text design and detailed, innovative figures, with accompanying commentary, greatly enhance the presentation. The third edition retains the successful blend of theory and practice that has made Sedgewick's work an invaluable resource for more than 250,000 programmers! This particular book, Parts 1-4, represents the essential first half of Sedgewick's complete work. It provides extensive coverage of fundamental data structures and algorithms for sorting, searching, and related applications. The algorithms and data structures are expressed in concise implementations in C, so that you can both appreciate their fundamental properties and test them on real applications. Of course, the substance of the book applies to programming in any language. Highlights Expanded coverage of arrays, linked lists, strings, trees, and other basic data structures Greater emphasis on abstract data types (ADTs) than in previous editions Over 100 algorithms for sorting, selection, priority queue ADT implementations, and symbol table ADT (searching) implementations New implementations of binomial queues, multiway radix sorting, Batcher's sorting networks, randomized BSTs, splay trees, skip lists, multiway tries, and much more Increased quantitative information about the algorithms, including extensive empirical studies and basic analytic studies, giving you a basis for comparing them Over 1000 new exercises to help you learn the properties of algorithms Whether you are a student learning the algorithms for the first time or a professional interested in having up-to-date reference material, you will find a wealth of useful information in this book.

Synopsis Parts 1-4 of Robert Sedgewick's work provide extensive coverage of fundamental data structures and algorithms for sorting, searching, and related applications. They reflect the third edition's greater emphasis on abstract data types (ADTs). Coverage includes more than 100 key algorithms for sorting, selection, priority queue ADT implementations, and symbol table ADT (searching) implementations. Also included are new implementations of binomial queues, multiway radix sorting, Batcher's sorting networks, randomized BSTs, splay trees, skip lists, and multiway tries. Increased quantitative information gives students a more solid basis for comparing algorithms, and hundreds of new exercises reinforce their learning. Algorithms and data structures described in the book are expressed in concise implementations in C, so that students can both appreciate their fundamental properties and test them on real applications.