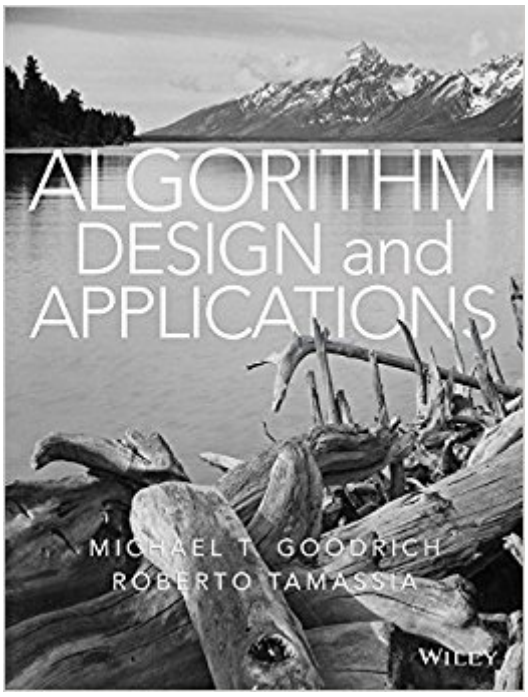
Algorithm Design And Applications



Synopsis

Introducing a NEW addition to our growing library of computer science titles,Â Algorithm Design and Applications, by Michael T. Goodrich & Roberto Tamassia! Algorithms is a course required for all computer science majors, with a strong focus on theoretical topics. Students enter the course after gaining hands-on experience with computers, and are expected to learn how algorithms can be applied to a variety of contexts. This new book integrates application with theory. Goodrich & Tamassia believe that the best way to teach algorithmic topics is to present them in a context that is motivated from applications to uses in society, computer games, computing industry, science, engineering, and the internet. The text teaches students about designing and using algorithms, illustrating connections between topics being taught and their potential applications, increasing engagement.Â

Book Information

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Average Customer Review: 2.9 out of 5 stars 5 customer reviews

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Customer Reviews

Like other readers, the explanations could definitely be more open. For a book to assume a reader will know what they are talking about, would mean that the reader would obviously be familiar with the material in the book. This makes any Computer Science majors who may not have seen these concepts before wondering where everything is coming from. Proofs aren’t really well structured and could be made more clear and concise as to what is happening.When reading about the Red-Black Trees the red-black property could be explained better to say that the root of a RB tree is black, red nodes can not be adjacent, and every path from the NULL node to the root have the same number

of black nodes. Rather than the confusing jargon that the authors have made it seem to be.Another thing about the book discussing Trees is that they put the NULL nodes there which can make the tree look more confusing and intimidating than it needs to be. AVL tree rotations could probably be seen better if the NULL nodes were omitted from the example to show what's happening instead of cluttering up the example itself.The lack of a student companion website doesn't help much as the book says homework hints are available there, yet the website says coming soon. So if you wanted help on a question you're better Googling the question to see if someone is stuck like you. Rather than wait for whenever the website for students will finally be available.

I've got many books on my bookshelf on Algorithms, their design and applications - some of them are excellent, others I regret buying. I've not finished working through this text yet, but I firmly believe Goodrich and Tamassia have done a great job with this new book - its a welcome addition to my collection. What differentiates this book from the many others books on this subject matter? In my opinion; the flow of the text is simply well above average - this is hugely important because the subject matter is non trivial - the main ideas are clearly presented with excellent figures helping to illustrate points, examples are great - essentially learning becomes a pleasure. For the serious student, the exercises are engaging and rewarding, to get the most out of the text try as many of the exercises as you can - this investment in time in the subject matter will be time well spent. I'm stilling working through them at the time of writing.No doubt students of computer science will be the target audience for this book - its a great choice of book, and definitely on a par with classic texts from Kleinberg&Tardos, Cormen(et al) and Sedgwick. For professional software engineers who love the subject matter, like myself, it is a wonderful engaging book, well worth a look.Thanks

The book had a different isbn number than advertised. It was a different print. That should have ben disclosed.

Explanations aren't clear as they could be. Overall it's an okay book, but you cannot check your answers for correctness if you're trying the problems on your own. This is a major pitfall for myself, I like to practice the material, check my understanding through the practice questions. If solutions are only available to "instructors", this is not suitable for use outside of academia.

Explanations in Chapter 1 lack any real depth. Proofs are written without any formal structure and huge assumptions are made about the reader magically understanding them. Poor execution at

Chapter 1. Explanation of Big O is unnecessarily complex, while the proofs are sparse. A prime example of educators misunderstanding what is obvious and what isn't. I gave it a star because there are some interesting problems in the book, but the booksite doesn't even load. You go to the page, it says "coming soon" WHEN EXACTLY? The books been long published. A lot of issues at chapter one, and confusing language in the explanations lead me to give it a 2 star review.

Algorithm Design and Applications Algorithm Design: Foundations, Analysis, and Internet Examples The Algorithm Design Manual Algorithm Design Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills) The Connection Algorithm: Take Risks, Defy the Status Quo, and Live Your Passions Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy Emerging Issues of Credit Card Frauds and their Detection Techniques using Genetic Algorithm Data Structures and Algorithm Analysis in Java (3rd Edition) Data Structures and Algorithm Analysis in C++ (3rd Edition) Data Structures and Algorithm Analysis in C (2nd Edition) Data Structures and Algorithm Analysis in Java (2nd Edition) The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World Data Structures & Algorithm Analysis in C++ Design, When Everybody Designs: An Introduction to Design for Social Innovation (Design Thinking, Design Theory) Graphic Design, Referenced: A Visual Guide to the Language, Applications, and History of Graphic Design Universal Principles of Design, Revised and Updated: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions, and Teach through Design Org Design for Design Orgs: Building and Managing In-House Design Teams Abundance by Design: Discover Your Unique Code for Health, Wealth and Happiness with Human Design (Life by Human Design Book 1) Making Design Theory (Design Thinking, Design Theory)