Programming Challenges: The Programming Contest Training Manual (Texts In Computer Science)
There are many distinct pleasures associated with computer programming. Craftsmanship has its quiet rewards, the satisfaction that comes from building a useful object and making it work. Excitement arrives with the flash of insight that cracks a previously intractable problem. The spiritual quest for elegance can turn the hacker into an artist.

There are pleasures in parsimony, in squeezing the last drop of performance out of clever algorithms and tight coding. The games, puzzles, and challenges of problems from international programming contests are a great way to experience these pleasures while improving your algorithmic and coding skills.

This book contains over 100 problems that have appeared in previous programming contests, along with discussions of the theory and ideas necessary to tackle them. Instant online grading for all of these problems is available from two WWW robot judging sites. Combining this book with a judge gives an exciting new way to challenge and improve your programming skills. This book can be used for self-study, for teaching innovative courses in algorithms and programming, and in training for international competition.

To the Reader

The problems in this book have been selected from over 1,000 programming problems at the Universidad de Valladolid online judge, available at http://online-judge.uva.es. The judge has ruled on well over one million submissions from 27,000 registered users around the world to date.

We have taken only the best of the best, the most fun, exciting, and interesting problems available.

**Book Information**

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Customer Reviews

I teach computer science at the high school level. Many of my students are hired for professional software development before they even graduate. One of the areas my students tell me they wish they could do better is contest coding. I've been doing quite a lot of research in that area, and I've read and digested several very good algorithms books (Data Structures and Algorithms in Java by Peter Drake is among the best I've read so far). Unfortunately, I have yet to find a book that adequately explains how to generate rapid solutions to contest problems. A skill that is interestingly useful in the professional environment in the role of prototyping.

WHAT I THINK ABOUT THIS BOOK:
The book falls very short of what it promises. It does contain a few selected programming problems (several of which I encountered when I competed in the ACM contests myself!), but it merely gives hints on things to think about and nothing about how to select appropriate solution algorithms. Also example code is only given for the simplest of situations. I would have preferred examples of more complex scenarios with a discussion of how to scale it back for simpler situations. Also, the book purports to be language neutral, and in their defense, although all the code is in C, there are discussions of how to use libraries from other languages. The only real use I got out of it was how to categorize problems into subsets and what those subsets look like. Essentially, the book is written to an audience who likely doesn't need the book in the first place...which is a shame. If you are a master programmer and you just need some "nudges" in the right direction, this will be an excellent book for you. If you are a novice, this book is all levels of wrong for you...

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