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Nota di contenuto	TO UPDATE Practical Algorithm Design -- to Algorithm Design -- Algorithm Analysis -- Data Structures -- Sorting and Searching -- Graph Traversal -- Weighted Graph Algorithms -- Combinatorial Search and Heuristic Methods -- Dynamic Programming -- Intractable Problems and Approximation Algorithms -- How to Design Algorithms -- The Hitchhiker’s Guide to Algorithms -- A Catalog of Algorithmic Problems -- Data Structures -- Numerical Problems -- Combinatorial Problems -- Graph Problems: Polynomial-Time -- Graph Problems: Hard Problems -- Computational Geometry -- Set and String Problems -- Algorithmic Resources.
Sommario/riassunto	"My absolute favorite for this kind of interview preparation is Steven Skiena’s The Algorithm Design Manual. More than any other book it helped me understand just how astonishingly commonplace … graph problems are -- they should be part of every working programmer’s toolkit. The book also covers basic data structures and sorting

algorithms, which is a nice bonus. … every 1 – pager has a simple picture, making it easy to remember." (Steve Yegge, Get that Job at Google) "Steven Skiena's Algorithm Design Manual retains its title as the best and most comprehensive practical algorithm guide to help identify and solve problems. … Every programmer should read this book, and anyone working in the field should keep it close to hand. … This is the best investment … a programmer or aspiring programmer can make." (Harold Thimbleby, Times Higher Education) "It is wonderful to open to a random spot and discover an interesting algorithm. This is the only textbook I felt compelled to bring with me out of my student days.... The color really adds a lot of energy to the new edition of the book!" (Cory Bart, University of Delaware) --- This newly expanded and updated third edition of the best-selling classic continues to take the "mystery" out of designing algorithms, and analyzing their efficiency. It serves as the primary textbook of choice for algorithm design courses and interview self-study, while maintaining its status as the premier practical reference guide to algorithms for programmers, researchers, and students. The reader-friendly Algorithm Design Manual provides straightforward access to combinatorial algorithms technology, stressing design over analysis. The first part, Practical Algorithm Design, provides accessible instruction on methods for designing and analyzing computer algorithms. The second part, the Hitchhiker's Guide to Algorithms, is intended for browsing and reference, and comprises the catalog of algorithmic resources, implementations, and an extensive bibliography. NEW to the third edition: -- New and expanded coverage of randomized algorithms, hashing, divide and conquer, approximation algorithms, and quantum computing -- Provides full online support for lecturers, including an improved website component with lecture slides and videos -- Full color illustrations and code instantly clarify difficult concepts -- Includes several new "war stories" relating experiences from real-world applications -- Over 100 new problems, including programming-challenge problems from LeetCode and Hackerrank. -- Provides up-to-date links leading to the best implementations available in C, C++, and Java Additional Learning Tools: -- Contains a unique catalog identifying the 75 algorithmic problems that arise most often in practice, and the right path to solve them -- Exercises include "job interview problems" from major software companies -- Highlighted "take home lessons" emphasize essential concepts -- The "no theorem-proof" style provides a uniquely accessible and intuitive approach to a challenging subject -- Many algorithms are presented with actual code (written in C) -- Provides comprehensive references to both survey articles and the primary literature This substantially enhanced third edition of The Algorithm Design Manual is an essential learning tool for students and professionals needed a solid grounding in algorithms. Professor Skiena is also the author of the popular Springer texts, The Data Science Design Manual and Programming Challenges: The Programming Contest Training Manual.