

FOUNDATIONS OF ALGORITHMS

Revised and updated, the *Fourth Edition* of *Foundations of Algorithms* continues to offer a well-balanced presentation of algorithm design, complexity of algorithms, and computational complexity. Perfect for mainstream computer science students with a background in college algebra and discrete structures, this edition presents mathematical concepts using lucid explanations and a simpler notation than is found in most texts. The authors reinforce key algorithmic explanations with numerous concrete examples to help students grasp theoretical concepts.



Jones and Bartlett Publishers 40 Tall Pine Drive Sudbury, MA 01776 978-443-5000 info@jbpub.com www.jbpub.com

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Fourth Edition

Key Features of the Fourth Edition:

Now makes use of C++ and Java pseudocode, helping students understand complex algorithms.

A chapter on numerical algorithms includes a review of basic number theory, Euclid's Algorithm for finding the greatest common divisor, a review of modular arithmetic, an algorithm for solving modular linear equations, an algorithm for computing modular powers, and the new polynomialtime algorithm for determining whether a number is prime.

Contains numerous examples throughout, ensuring that students have a clear grasp of the complex algorithms being discussed.

A review of essential mathematical concepts is presented in three appendices.





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