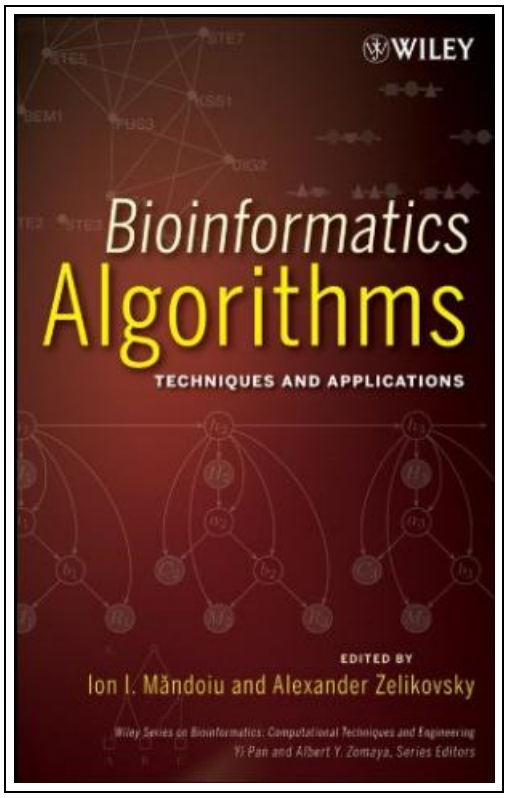
Bioinformatics Algorithms: Techniques and Applications (Hardback)



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Reviews

Very helpful for all category of men and women. It is rally fascinating throgh studying period. It is extremely difficult to leave it before concluding, once you begin to read the book.
(Prof. Asia King)

BIOINFORMATICS ALGORITHMS: TECHNIQUES AND APPLICATIONS (HARDBACK)

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John Wiley & Sons Inc, United States, 2008. Hardback. Condition: New. 1. Auflage. Language: English. Brand new Book. Presents algorithmic techniques for solving problems in bioinformatics, including applications that shed new light on molecular biology This book introduces algorithmic techniques in bioinformatics, emphasizing their application to solving novel problems in post-genomic molecular biology.Beginning with a thought-provoking discussion on the role of algorithms in twenty-first-century bioinformatics education, Bioinformatics Algorithms covers:* General algorithmic techniques, including dynamic programming, graph-theoretical methods, hidden Markov models, the fast Fourier transform, seeding, and approximation algorithms* Algorithms and tools for genome and sequence analysis, including formal and approximate models for gene clusters, advanced algorithms for non-overlapping local alignments and genome tilings, multiplex PCR primer set selection, and sequence/network motif finding* Microarray design and analysis, including algorithms for microarray physical design, missing value imputation, and meta-analysis of gene expression data* Algorithmic issues arising in the analysis of genetic variation across human population, including computational inference of haplotypes from genotype data and disease association search in case/control epidemiologic studies* Algorithmic approaches in structural and systems biology, including topological and structural classification in biochemistry, and prediction of protein-protein and domain-domain interactions Each chapter begins with a self-contained introduction to a computational problem; continues with a brief review of the existing literature on the subject and an in-depth description of recent algorithmic and methodological developments; and concludes with a brief experimental study and a discussion of open research challenges.This clear and approachable presentation makes the book appropriate for researchers, practitioners, and graduate students alike.

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