

WILEY SERIES ON BIOINFORMATICS: COMPUTATIONAL TECHNIQUES AND ENGINEERING

Discover how data mining is fueling new discoveries in bioinformatics

As the field of bioinformatics continues to flourish, producing enormous amounts of new data, the need for sophisticated methods of data mining to better manage and extract meaning from bioinformatics data has grown tremendously. This pioneering text brings together an unparalleled group of leading experts in both data mining and bioinformatics. These experts present a broad range of novel methods, techniques, and applications of data mining for the analysis and management of bioinformatics data sets. Among the topics covered are:

- RNA and protein structure analysis
- DNA computing
- Sequence mapping and genome comparison
- Gene expression data mining
- Metabolic network modeling
- Phyloinformatics
- Biomedical literature data mining
- Biological data integration and searching

For each topic, readers get an inside perspective into the latest research—what works and what doesn't and where additional research and development is needed. References to the primary literature facilitate further in-depth research.

Data mining in bioinformatics holds the promise of solving such fundamental problems as protein structure, gene finding, data retrieval, and integration. This text is therefore essential reading for all researchers in bioinformatics, pointing them to new methods and techniques that may be the key to new and important discoveries.

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