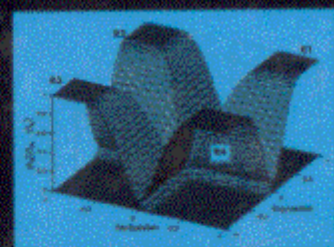


LEARN HOW TO APPLY COMPUTATIONAL INTELLIGENCE METHODS TO SOLVE PROBLEMS IN BIOINFORMATICS

Combining biology, computer science, mathematics, and statistics, the field of bioinformatics has become a hot new discipline with profound impacts on all aspects of biology and industrial application. However, due to limitations of traditional algorithms, scientists have been increasingly forced to rethink the way they adapt modeling approaches to challenges created by a wealth of biological data. Now, as computational intelligence (CI) has been applied to bioinformatics with promising results, there is a need for a thorough and comprehensive overview of the importance of and recent developments in CI methods across a range of bioinformatics problems. *Computational Intelligence in Bioinformatics* offers an introduction to the topic, covering the most relevant and popular CI methods, while also encouraging the implementation of these methods to readers' research.



Organized in self-contained chapters developed and edited by leading educators in their fields, *Computational Intelligence in Bioinformatics* explains and applies CI methods to problem areas, such as:

- Gene expression analysis and systems biology
- Sequence analysis and feature detection
- Molecular structure and phylogenetics
- Medicine

Enhanced by an accompanying Web site (www.ci-in-bioinformatics.com) that includes data sets used in the book, software that can be obtained for open distribution, a selection of the best and easiest-to-use software for the CI techniques covered in the book, and "Challenge Problems" whose progress will be reported and tracked on the site, *Computational Intelligence in Bioinformatics* serves as a valuable resource for professionals who are interested in applying CI to solve problems in bioinformatics applications, and also accommodates the needs of graduate-level students in bioinformatics courses.

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