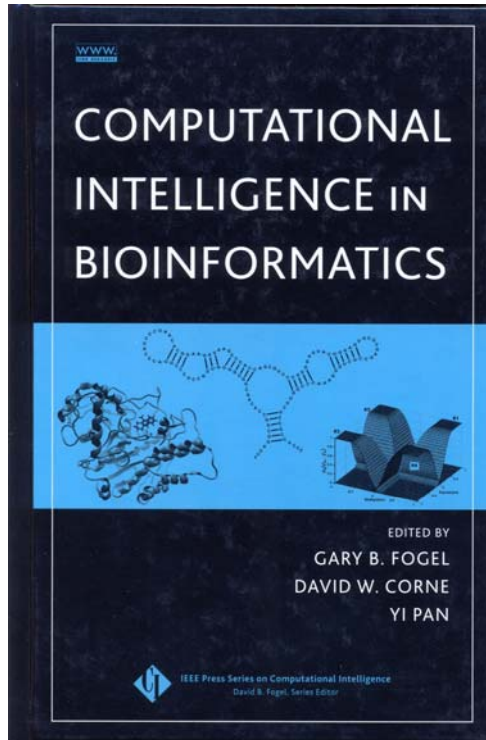


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COMPUTATIONAL INTELLIGENCE  
IN BIOINFORMATICS



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Bioinformatics is a recent scientific discipline that combines biology, computer science, mathematics, and statistics into a broad-based field with profound impacts on all aspects of biology and industrial application. Due to limitations of traditional algorithms, scientists have been increasingly forced to rethink the way to adapt modeling approaches to challenges created by a wealth of biological data.

*Computational Intelligence in Bioinformatics* serves to highlight the importance and recent success of computational intelligence methods over a diverse range of bioinformatics problems. It will encourage others to apply these methods to their research, while serving not only as an introduction to computational intelligence methods but also presents applications to the consumers of the research.

The book is organized as a number of stand-alone chapters developed and edited by leading educators that explain and apply the computational intelligence methods to problem areas, such as:

- Gene expression analysis and systems biology
- Sequence analysis and feature detection
- RNA and protein structure prediction and phylogenetics
- Medicine

*Computational Intelligence in Bioinformatics* is enhanced by an accompanying Web site ([www.ci-in-bioinformatics.com](http://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 computational intelligence techniques covered in the book, and "Challenge Problems" whose progress will be reported and tracked on the site. The book serves as a valuable resource for professionals who are interested in applying computational intelligence to solve problems in bioinformatics applications, and also accommodates the needs of graduate-level students in bioinformatics courses.

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