Bioinformatics: The Machine Learning Approach

About the Book

Bioinformatics is the application of tools of computation and analysis for capturing and interpreting biological data. Machine learning is a branch of artificial intelligence and computer science that has applications in multiple fields. Machine learning in bioinformatics involves the application of machine learning algorithms to bioinformatics such as proteomics, genomics, microarrays, evolution, text mining and systems biology. Genomics is a prominent area of bioinformatics involved in the study of genome mapping, genomic expression regulation, and genome evolution and editing. In medical diagnostics, some of the major applications of machine learning in genomics are genome sequencing, gene editing, and improving clinical workflow. This book outlines a machine learning approach towards bioinformatics. A number of latest researches have been included to keep the readers updated with the global concepts in this area of study. It aims to serve as a resource guide for students and experts alike and contribute to the growth of the discipline.

About the Editor

Gianni Russell completed his PhD in Bioinformatics Data Science from the University of Delaware, USA. His primary areas of scholarly and research interests lie in the application of computer methods for management, analysis and design of experiments; studying yeast signaling pathways through deep belief networks and genetic perturbation data; and hidden Markov models for biological sequencing. Russel has produced over 60 articles and research papers in the field of bioinformatics and data science. He has also been an eminent speaker in seminars across Europe, United States, Canada, and Middle Asia.

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