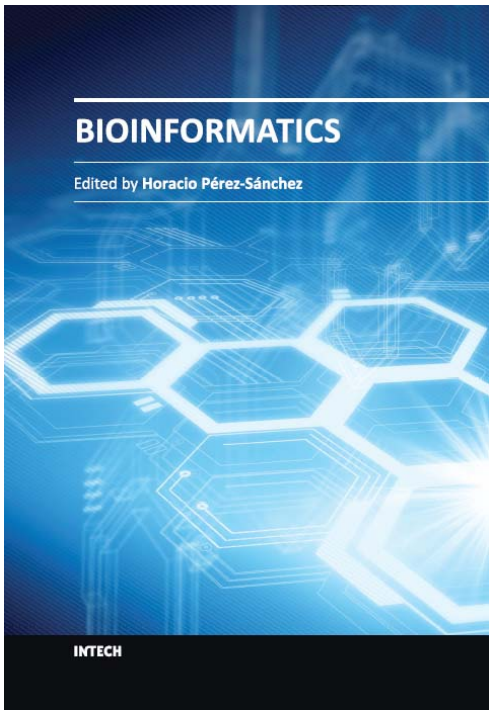
HORACIO PEREZ-SANCHEZ (EDITOR)
BIOINFORMATICS



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This book describes several of the most important areas in Bioinformatics, grouped into five main sections. In the first section, the importance and relevance of biological networks and their relevance is explained and its potential is exploited in different research areas. The second one describes the latest developments and applications in the active field of next generation sequencing. Since Bioinformatics studies requires the use of high performance computing resources, the third section describes its exploitation in different scenarios. Detailed reviews of molecular modeling and advanced aspects of its application in drug discovery scenarios are described in the fourth section. Exposition of the relevance of structural bioinformatics is described in the fifth section, and the last part of the book shows different studies where the application of intelligent data analysis techniques has been elegantly employed.

The objective of the book is to give a general view of the different areas of Bioinformatics, and each of them both introduces basic concepts and then explains its application to problems of great relevance, so both novice and expert readers can benefit from the information and research works presented here.

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