Special Issue

Emerging Trends in Deep Learning for Data Mining in Bioinformatics Analysis

Message from the Guest Editors

In recent years, bioinformatics has transformed significantly due to the rapid accumulation of vast biological data, spanning genomics, protein structures, clinical records, and experimental results. This data surge offers unprecedented opportunities and challenges, demanding advanced computational methods to extract insights, predict biological phenomena, and support biomedical research. Deep learning, inspired by the human brain's neural networks, has emerged as a compelling solution. Deep learning possesses the remarkable ability to automatically learn hierarchical representations from raw data. In the realm of bioinformatics, deep learning excels at deciphering intricate patterns, predicting biological outcomes, and extracting vital insights from complex datasets. It has been adapted for various bioinformatics tasks, including genomic sequence analysis, protein structure prediction, biological network analysis, disease classification, and image analysis.

Keyword: deep learning; data mining; genomic data; proteomic data; biological networks

Guest Editors

Dr. Federico Divina
Dr. Pedro Manuel Martínez García
Dr. Miguel García-Torres

Deadline for manuscript submissions

closed (31 March 2025)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/186905

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)