Special Issue

Deep Learning and Machine Learning Applications in Biomedicine

Message from the Guest Editor

Biomedicine has been significantly transformed by the integration of artificial intelligence (AI) techniques, particularly machine learning (ML) and deep learning (DL). These technologies have revolutionized the way medical data are analyzed, diagnoses are made, and treatment strategies are developed. Deep learning and machine learning have been widely applied in disease diagnosis, personalized medicine, drug discovery, medical imaging, prognosis analysis, and in the explanation of pathogenic mechanisms. As technology in the biomedical field continues to evolve, the omics categories and scale of data are experiencing continuous growth, leading to new computational method requirements. Although a large number of new methods including neural network architecture, optimization techniques, regularization methods, data enhancement strategies and transfer learning have been proposed, how to apply them to the biomedical field remains a major challenge. This Special Issue is dedicated to the publication of cutting-edge algorithmic innovations in deep learning and machine learning, specifically applied to the biomedical field's most pressing problems.

Guest Editor

Prof. Dr. Tianyi Zhao
School of Medicine and Health, Harbin Institute of Technology, Harbin 150006, China

Deadline for manuscript submissions

closed (20 July 2024)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/179550

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, CAPlus / SciFinder, and other databases.

Journal Rank:

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