Deep Learning and Machine Learning Applications in Biomedicine

Guest Editor:

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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.

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Special Issue

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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.

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