

Special Issue

Deep Learning and Neuro-Evolution Methods in Biomedicine and Bioinformatics

Message from the Guest Editor

Recent years have seen the rise of deep learning (DL). Thanks to the advances in terms of hardware, algorithms, and availability of data, DL has been used successfully to address complex problems that would have been impossible to address a few decades ago. Nonetheless, the revolution brought by DL techniques is just in its early infancy, with new contributions and new ideas constantly being proposed and published. A related approach comes from the field of neuro-evolution, the use of evolutionary algorithms to optimize DL architectures. Neuro-evolution has the potential to achieve better performance with respect to DL-based models, considering that it can optimize the whole architecture, its hyperparameters, and the learning algorithm. The objective of this Special Issue is to invite active researchers in the field of DL to present original research articles that focus on the development and application of new DL architectures for addressing complex problems in the fields of biomedicine and bioinformatics. Hybrid techniques combining both DL with neuro-evolution are particularly welcome.

Guest Editor

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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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