Special Issue

Novel Approaches for Artificial Intelligence in Neuroimaging Applications

Message from the Guest Editor

Emerging studies are employing artificial intelligence in neuroimaging for preprocessing, diagnosis, treatment and prognosis. The SHAP approach combines the results of all possible scenarios, which are ignored in linear or logistic regression, making the unrealistic assumption of ceteris paribus. This approach emphasizes important predictors for neuroimaging applications with numeric data. Likewise, Grad-CAM highlights regions of interest for neuroimaging using computed tomography and magnetic resonance imaging data. Moreover, generative artificial intelligence and multi-modal reinforcement learning are increasing in popularity. Given a sequence of text or image inputs, generative artificial intelligence generates a sequence of their probabilities based on Bidirectional Encoder Representations from Transformers (BERT) or Generative Pre-trained Transformers (GPT). Few investigations have been carried out on these important issues. Therefore, this Special Issue invites authors to submit original and review articles on novel applications of artificial intelligence in neuroimaging, including preprocessing, diagnosis, treatment and prognosis.

Guest Editor

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Deadline for manuscript submissions

closed (31 May 2025)

Diagnostics

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 5.9
Indexed in PubMed

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