



an Open Access Journal by MDPI

# Deep Learning in Biomedical Image Segmentation and Classification: Advancements, Challenges and Applications

Guest Editor:

#### Dr. Ebrahim Karami

Department of Engineering and Applied Sciences, Memorial University, St. John's, NL A1B 3X5, Canada

Deadline for manuscript submissions: closed (31 March 2025)

### Message from the Guest Editor

This Special Issue aims to explore the latest advancements, challenges, and applications of deep learning techniques in the field of biomedical image segmentation and classification. Biomedical image analysis plays a crucial role in various medical domains, enabling the accurate segmentation, and classification identification. of structures, organs, and anomalies. Deep learning, with its ability to learn complex features and patterns from largescale datasets, has revolutionized biomedical image significant analysis, offering improvements in segmentation and classification accuracy and efficiency. This Special Issue welcomes original research papers, review articles, and case studies that present novel deep learning methodologies, architectures, and algorithms, as well as their practical applications and implications in biomedical image segmentation and classification. The collection of contributions will provide a comprehensive overview of the current state-of-the-art techniques, identify challenges and limitations, and pave the way for future research directions in this rapidly evolving field.



mdpi.com/si/177145







an Open Access Journal by MDPI

# **Editor-in-Chief**

#### Prof. Dr. Raimondo Schettini

Department of Informatics, Systems and Communication, University of Milano-Bicocca, viale Sarca, 336, 20126 Milano, Italy

### Message from the Editor-in-Chief

The imaging term, specific with journal, is to be considered in its broadest sense. Image processing, image understanding and computer vision are all terms related to imaging acquisition, its processing and the extraction of relevant information from the scene to obtain the underlying knowledge. All tasks related to the above items are oriented toward specific applications in a broad range of areas and topics. The *Journal of Imaging* is conceived as an efficient vehicle in the scientific community for the communication and transmission of the progress and research results in the topics covered.

## **Author Benefits**

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

**High Visibility:** indexed within Scopus, ESCI (Web of Science), PubMed, PMC, dblp, Inspec, Ei Compendex, and other databases.

**Journal Rank:** JCR - Q2 (Imaging Science and Photographic Technology) / CiteScore - Q1 (Radiology, Nuclear Medicine and Imaging)

## **Contact Us**

*Journal of Imaging* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/jimaging jimaging@mdpi.com X@J\_Imaging\_MDPI