Special Issue

Innovative AI-Based Approaches to Image Segmentation

Message from the Guest Editor

This Special Issue invites cutting-edge contributions that leverage AI's transformative potential to address longstanding challenges in segmentation. The following topics will be of particular interest: deep convolutional and transformer-based architectures, semi-supervised and self-supervised learning strategies, graph neural networks, domain adaptation, and hybrid solutions that integrate classical techniques with modern data-driven models. We welcome submissions that present novel algorithms, comprehensive benchmarks, interpretable models, real-world application studies, and open-source tools. By uniting theoretical insights with practical implementations, this Special Issue aims to chart new directions for AI-based image segmentation and foster collaborations that accelerate the development of reliable, explainable, and efficient solutions. Interdisciplinary and cross-domain studies that bridge gaps between research fields are especially encouraged.

Guest Editor

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Message from the Editor-in-Chief

Informatics (ISSN 2227-9709) is an international, peer-reviewed, open access journal, which publishes original theoretical and empirical work on the science of informatics and its application in multiple fields. Our concept of Informatics includes technologies of information and communication as well as the biological, social, linguistic and cultural changes that initiate, accompany and complicate their development. *Informatics* publishes regular research articles, reviews and short notes. There is no restriction on the length of papers, and we encourage researchers to publish their theoretical and empirical results in as much detail as possible. The scientific community and the public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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