Special Issue

Clinical Diagnosis Using Deep Learning

Message from the Guest Editor

Numerous clinically validated applications of deep learning have already revolutionized and continue to disrupt key facets of medical diagnostics, including laboratory, clinical-assessment-based, and imagebased solutions at an ever-accelerating pace. Supporting and augmenting the work of numerous clinical specialists, image-based deep learning is currently used for i) image acquisition and augmentation, ii) automated semantic segmentation, and iii) image classification. While numerous clinically validated examples of algorithms in each of these categories exist, combinations of these applications have further potential for uncovering and facilitating entirely new diagnostic approaches and instruments. This Special Issue is intended to lay the foundation of clinical deep learning applications focusing on case studies in image analysis, discuss several example applications of deep learning diagnostics with emphasis on enabling personalized medicine, and provide an overview of frameworks for the broader integration of disparate deep learning algorithms in clinical practice.

Guest Editor

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Editor-in-Chief

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