Special Issue

Advanced Research and Applications of Deep Learning and Neural Network in Image Recognition

Message from the Guest Editors

Over the past two decades, few developments have been more astounding than the rapid progress achieved in image recognition. Object detection performance rates skyrocketed from approximately 30 percent in mean average precision to more than 90 percent for the PASCAL VOC benchmark. These improvements in image classification have significant impacts on a wide range of practical applications, including video surveillance, autonomous driving, intelligent healthcare, remote sensing image interpretation, and artificial intelligence. The success of deep learning is powered by two crucial issues: large-scale training datasets and powerful computational platforms. The aim of this Special Issue is to present new solutions to these challenging problems. Topics of interests include but are not limited to the following issues:

- The improvement of model generalization ability.
- The improvement of learning efficiency in small data environments.
- Lightweight neural networks oriented to this specific task.
- The integration of prior knowledge in deep learning.
- The multitask deep learning technique.

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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