Title:

Deep Learning and Its Applications

Abstract:

Nowadays, machine learning and, in particular, deep learning have come to play a vital role in shaping the emerging artificial intelligence. Different from traditional machine learning algorithms, deep learning techniques are capable of automatically discovering features appropriate for a specific task from raw data, which reduces the need for feature engineering and makes it easier to develop end-to-end solutions. The great success of deep learning techniques in computer vision, speech recognition, and natural language processing has recently attracted much attention.

The recent advances in adversarial learning and reinforcement learning shed light on new perspectives for data generation and action planning. It is expected that the use of the latest technology techniques can significantly advance the performance of many state-of-the-art algorithms. Thus, we need more insights to comprehend deep learning both theoretically and practically. This workshop aims to bring together researchers from different paradigms solving big problems under a unified platform for sharing their work and exchanging ideas.

Scope and Topics:

Potential topics include but are not limited to:
- New models for multimodal deep learning
- Joint or shared deep feature learning
- Transfer learning in deep neural network
- Reinforcement deep learning
- Adversarial deep learning
- Explainable generative adversarial models
- Autonomous robotics with reinforcement deep learning
- Adversarial learning to improve traditional training approaches
- Adversarial-based unsupervised learning for big data
- Adversarial and reinforcement learning-based approaches for text processing

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Dr. Arun Kumar Sangaiah received his Ph.D from VIT University and Master of Engineering from Anna University, in 2007 and 2014, respectively. He is currently Associate Professor at School of Computing Science and Engineering, VIT University, Vellore, India. He was a visiting professor at School of computer engineering at

Nanhai Dongruan Information Technology Institute in China (September. 2016-Jan. 2017). He has published more than 180 scientific papers in high standard SCI journals like IEEE-TII, IEEE-Communication Magazine, IEEE systems, IEEE-IoT, IEEE TSC, IEEE ETC and etc. In addition he has authored/edited over 8 books (Elsevier, Springer, Wiley, Taylor and Francis) and 50 journal special issues such as IEEE-Communication Magazine, IEEE-IoT, IEEE consumer electronic magazine etc. His area of interest includes software engineering, computational intelligence, wireless networks, bio-informatics, and embedded systems. Also, he was registered a one Indian patent in the area of Computational Intelligence. Besides, Prof. Sangaiah is responsible for Editorial Board Member/Associate Editor of various international SCI journals.

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