Special Issue

Machine Learning for Dependable Edge Computing Systems and Services

Message from the Guest Editors

Recent advances in machine learning (ML) techniques, particularly deep learning (DL), reinforcement learning, and federated learning, have successfully caused a huge number of breakthroughs in various application domains. Internet of Things (IoT) systems and applications consist of ubiquitously interconnecting devices (e.g., wireless sensors, wearable/mobile devices, cameras, smart tags, robots/UAVs, etc.). The urgent requirement of responsiveness and privacy led to Edge computing, a new paradigm that pushes the power of data analytics and computing capability to the edge of a network, closer to where the data are generated. Huge challenges exist in the design, implementation, deployment and maintenance of trustworthy and reliable Edge systems' infrastructures, algorithms, and applications. ML and DL technologies are well-suited and insightful for use in the provision automated data and resource management and offer advanced secure and robust malicious behaviour detection, thereby significantly improving the trusted intelligence and operational efficiency.

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Message from the Editor-in-Chief

Big Data and Cognitive Computing (BDCC) is a scholarly online journal which provides a platform for big data theories with emerging technologies on smart clouds and exploring supercomputers with new cognitive applications. It is a peer-reviewed, open access journal that publishes high quality original articles, reviews and short communications. The primary aims of this journal are to encourage contributions of high quality scientific papers relating to data management and analytics in industry, such as manufacturing, healthcare, education, media and business, data mining, and cognitive science. There is no restriction on the maximum length of the papers.

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