Special Issue

Machine Learning Methodologies and Applications in Cybersecurity Data Analysis

Message from the Guest Editors

Machine learning (ML) represents a pivotal technology for current and future information systems, with many domains already leveraging its capabilities. However, ML deployment in cybersecurity is still at an early stage, revealing a significant discrepancy between research and practice. ML is able to quickly analyze large volumes of historical and dynamic data, enabling applications to operationalize data from various sources in near-real time. Recently, we have witnessed the rapid development in ML methodologies and applications for cybersecurity data analysis in threat detection, raw data analysis, and alert management, among others. Yet, in this specific domain, unleashing the full benefits of ML in practice stems from balancing the underlying conflict between the intrinsic characteristics of the cybersecurity domain and the fundamental assumptions of ML. This Special Issue invites new research contributions to machine learning methodologies and applications specifically tailored to cybersecurity data analysis challenges.

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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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