



Machine Learning Methodologies and Applications in Cybersecurity Data Analysis

Guest Editors:

Prof. Dr. Biao Han

Dr. Xiaoyan Wang

Prof. Dr. Xiucui Ye

Dr. Na Zhao

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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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Editor-in-Chief

Prof. Dr. Min Chen

School of Computer Science and
Engineering, South China
University of Technology,
Guangzhou 510641, China

Message from the Editor-in-Chief

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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