Special Issue

Recent Advances in Network Security

Message from the Guest Editors

This Special Issue, "Recent Advances in Network Security," presents cutting-edge research addressing the dynamic and escalating challenges of securing modern networks. The collection of papers highlights a paradigm shift from traditional, static defense mechanisms to more adaptive, intelligent, and programmable security frameworks.

Key themes explored include encrypted traffic analysis, where novel machine learning and statistical methods are employed to detect malicious activities without decrypting sensitive data, thus preserving privacy. Another significant focus is the programmable network data plane, which leverages technologies like P4 to enable line-rate, in-network security functions, allowing for the rapid deployment of custom defenses against emerging threats. Furthermore, this issue delves into AI-driven network security, showcasing how artificial intelligence and machine learning are revolutionizing threat intelligence, automating anomaly detection, and enabling autonomous response systems.

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About the Journal

Message from the Editor-in-Chief

Network provides full coverage of all topics of interest involved in the networking area. The purpose of this journal is to bring together researchers, engineers, and students from academia and industry to present novel ideas and solid research about the theoretical and practical aspects in the application domains of communications and networks. The primary focus of the journal is on the analysis, modeling, design, simulation, and implementation of networks. This journal will also serve to attract research concerning applying networking architectures and scenarios to emerging research topics such as Internet of Things (IoT), edge computing, distributed ledger technology, among others.

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