Special Issue

AI for Cybersecurity: Robust models for Authentication, Threat and Anomaly Detection

Message from the Guest Editors

Machine learning and artificial intelligence can provide powerful tools for addressing such issues, but the robustness of the obtained models is often ignored or underestimated. On the one hand, AI-based tools can be replicated by malicious opponents, and attacks can be devised so that they will not be detected (elusion attacks). On the other hand, data and system contexts can be modified by attackers in order to influence AI-based countermeasures and render them ineffective (active data poisoning). For this Special Issue, we would like to attract papers that address the robustness and effectiveness of AI-based methods that are applied to cybersecurity, with particular reference to the following list of issues in the anomaly detection continuum:

- Biometric and behavioral user identification
- User and agent authentication
- Two-factor and multilevel authentication
- Risk-aware authentication
- Continuous authentication
- Network anomaly detection
- Anomaly detection in applications and from user behavior
- Malicious software classification and detection
- Misuse detection in social networks
- Threat and security intelligence

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

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