

Supervised Learning for Cyber Threat Intelligence

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Abstract : The major aim of cyber threat intelligence (CTI) is to provide sophisticated knowledge about cybersecurity threats to ensure internal and external safeguards against modern cyberattacks. Inaccurate, incomplete, outdated, and invaluable threat intelligence is the main problem. Therefore, data analysis based on AI algorithms is one of the emergent solutions to overcome the threat of information-sharing issues. In this paper, we propose a supervised machine learning-based algorithm to improve threat information sharing by providing a sophisticated classification of cyber threats and data. Extensive simulations investigate the accuracy, precision, recall, f1-score, and support overall to validate the designed algorithm and to compare it with several supervised machine learning algorithms.

Keywords : threat information sharing, supervised learning, data classification, performance evaluation

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