Research and development of an intrusion detection system based on anomaly detection

Vu Van Hoang

Abstract: In the increasingly complex context of cybersecurity, early detection of intrusion behaviors is an urgent issue. This topic focuses on researching and deploying a network intrusion detection system based on anomaly detection, aiming to enhance the security capabilities of network systems. Through a process of theoretical analysis combined with experimentation, the topic aims to contribute effective solutions for network security monitoring and reducing the risk of attacks. Machine learning algorithms are used in the research to develop the system's accurate recognition capabilities.

Keywords: Intrusion detection system, Anomaly detection, Network security, Machine learning, Cybersecurity