

# **Building an intrusion detection system using machine learning techniques**

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**Abstract:** This topic focuses on building and deploying an intrusion detection system based on machine learning methods, aiming to address the increasingly complex issue of network security. The objective of the research is to identify the most effective machine learning model for detecting abnormal activity in network data. The approach combines both theoretical and experimental research to build a system capable of identifying intrusions accurately and quickly. Expected outcomes of the topic include providing a new network security solution, improving intrusion detection performance, and contributing to the field of machine learning research applied to security.

**Keywords:** Machine Learning, Intrusion Detection, Network Security