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A STUDY OF ARTIFICIAL INTELLIGENCE (AI) AND ITS SUBFIELDS RELEVANT TO SECURITY

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ABSTRACT

When it comes to the functioning, communicating, and protecting of IoT devices, artificial intelligence (AI) has emerged as a game-changing force. Devices can now collect and analyze massive volumes of data in real time, allowing for intelligent judgments and predictions to be made, all thanks to the incorporation of AI into IoT systems. Analytics powered by AI allow for the detection of trends, outliers, and insights that improve device performance, user experiences, and operational efficacy. The IoT ecosystem as a whole is strengthened against cyber-attacks and illegal access because to AI's ability to monitor device activity in real time, identify anomalies, and react swiftly to threats. The convergence of artificial intelligence (AI) with the Internet of Things (IoT) offers a more connected, intelligent, and secures future for a wide range of sectors, from manufacturing and healthcare to transportation and smart cities.