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Cyber Hacking Breaches Detection Using Machine Learning

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Abstract: *Cyber hacking breach prediction is one of the emerging technologies and detecting and predicting breaches through computer algorithms has become a very challenging task To make malware detection more effective, scalable and more efficient than traditional system calls human involvement Machine learning to be used for breach detection and prediction The main goal is a series of cyber hacking attacks each of which will harm the person's information and financial reputation. Government and non-profit organizations' data, such as user and company information,, can be compromised, posing a risk to their finances and reputation if they collect information from websites and social networks it can trigger a cyber attack. Organizations such as the healthcare sector are capable of holding sensitive information that must be handled discreetly and securely. Data breaches can lead to identity theft, fraud, and other losses. The findings show that 70% of breaches affect a wide range of organisations, including healthcare providers. The investigation indicates a possible data breach. Due to the heavy usage of computer programs and security on the host and network, there is a risk of data breach. Machine learning can be used to detect these attacks. Research uses machine learning models to protect against web security flaws. The data set is available from the Privacy Rights Clearing House. Teaching employees how to use modern security measures can reduce data breaches. This can help to understand attack detection and data security. Machine learning models such as Random Forest, Decision Tree, k-means and Multi- layer Perceptron are used to predict data violations.*

Keywords: Cyber hacking breaches, Machine learning, Algorithms, Prediction