

# A Systematic Review and Comparative Study of Cryptojacking Detection via Machine Learning

MMNH Bandara, GAD Ganepola

*Department of Information Technology, Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka*

**Abstract.** Cryptocurrency mining has grown in importance on the Internet in recent years, and it now has a significant impact on the worldwide economy. As a result, a new dangerous malware known as Cryptojacking has emerged, which involves infecting other machines connected to the Internet and using their resources to mine cryptocurrency. Cryptojacking is a type of mobile malware that is very common, and it is a sort of cybercrime in which cybercriminals utilize people's digital devices to mine cryptocurrency without their permission. Cryptojacking can affect any device, including mobile phones, laptops, and other computers. This is due to its open-source nature and the global rise of artificial intelligence (AI). In this regard, crypto miners are particularly interested in the identification of Cryptojacking in devices, which may now be done via traditional methods. All these measures, however, are still unsuccessful in detecting Cryptojacking. Using prior research articles, this work gives the best machine learning-based algorithms or models for detecting Cryptojacking. The most utilized machine learning algorithms or models for Cryptojacking identification were investigated in this study. The most widely utilized machine learning approach in the content analysis of these articles for detecting Cryptojacking is the Support Vector Machine (SVM) and Random Forest, Decision Tree, and KNN are high accuracy machine learning algorithms that can be used to detect Cryptojacking. SVM is used in most research and its accuracy rate is more than 95% of all research papers cited. This study will help researchers gain an in-depth understanding of the Cryptojacking sector in the future, as well as identify prospective research and development directions.

**Keywords:** *Cryptojacking detection, cryptocurrency mining, machine learning*