ABSTRACT

Malware (Malicious Software) is one of the many myriad of threats on the internet that is always growing rapidly, diverse, and more complex. Antivirus is known as the main mitigation method for malware, but nowadays it needs hands-on action from cybersecurity professionals to analyse further. However, human resources in cybersecurity that are specifically engaged in malware analysis are also limited.

Based on the problems above, one way to mitigate this problem is to use heuristic detection technology. Heuristic detection can be achieved through the Supervised Learning method from the one of artificial intelligence technology, namely Machine Learning.

This final project will be specific on implementing Supervised Learning model using Python programming language to detect malware based on the behavior and attributes of the software to be identified.

The test results prove that the accuracy value is 93.3% and the precision value is 90.9%.

Keywords**:** *Cybersecurity, Malware,* Python, *Supervised Learning, Detection, Classification, Threat, Forensic.*