Peninsula College Georgetown

MAL3018 Computing Project

Malware Notifier

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1.Abstract

In the current digital era, the proliferation of malicious software (malware) poses a persistent threat to the security and integrity of computer systems. This project, titled Malware Notifier, introduces a real-time file monitoring application developed in Python to detect suspicious file creations across common system directories such as Desktop, Downloads, and Documents. When a file with a potentially dangerous extension (e.g., `.exe`, `.zip`, `.bat`) is created, the system triggers an automated email alert to notify the user of its presence.

The application also integrates with the VirusTotal API to further classify files as malicious or benign, enhancing the credibility of the alert system. A graphical user interface (GUI) was designed using Tkinter to improve accessibility and usability, allowing non-technical users to operate the tool effortlessly.

This report outlines the design, implementation, and evaluation of Malware Notifier, with particular attention to usability, performance, and its broader legal, ethical, and social implications. The project contributes a lightweight yet effective cybersecurity tool suitable for personal and small enterprise usage, reinforcing proactive malware awareness and response.

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