Cyber Rat

**Team:**

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Purpose of Cyber Rat:

Cyber Rat is for a better user experience, as well as an easier way to broaden the scope for easier understanding of the tools themselves. For example, your task is to find a target vulnerability in a wifi network. Our ideal application would tear that task into parts:

* Penetrate the network (using a physical wifi module)
* Find the target (using nmap)
* Identify the target (using wireshark, packet sniffing)
* (optional) Exploit the target (send corrupted packets)

Method:

Cyber Rat would be a python desktop application that simulates or runs cyber security tools locally with a UI assisting the user. We would use scripts to run certain applications for the necessary task and display them with assistance. For ease of use it would implement Kali Linux for their variety of tools and ease of creating a VM for our necessary testing. For the hardware implementation this project uses a Flipper Zero to simulate tools that are not present on a typical machine. This could change overtime as we implement python libraries for our application.

References:

https://www.apriorit.com/dev-blog/web-python-cybersecurity-tool#:~:text=PyCrypto%20%E2%80%94%20a%20package%20for%20encryption%2C%20decryption%2C,to%20create%20an%20actionable%20plan%20after%20you've

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# Statement of the Problem

Using all these Cyber Security tools takes training and deep understanding. There needs to be a better way of learning/implementing about cybersecurity especially when it comes to their professional tools.

# Objectives

Create a desktop application that calls on these tools in app or in shell within an operating system. With much room of expansion for all the kinds of tools available in the cybersecurity landscape, identifying multiple threats and scanning for existing vulnerabilities in our own system.

# Technical Approach

Using Python, shell script and maybe C/C++ we will create a desktop application that uses these cybersecurity tools for specific tasks. Scanning the network for all its ports looking for vulnerabilities, packet sniffing and filtering as well as implementing hardware hacking/scanning with the Flipper zero GPIO or using GPIO modules for other hacks.

# Early Project Schedule

A screenshot of a computer

Description automatically generated

# Deliverables

We promise a Desktop application with Cyber security tools first and foremost going through each area. We have ideas of expansion that are with the Flipper zero.

# Budget

The Flipper zero is 260$ with the Wi-Fi module and 15$ for the micro-SD that is required. Covered by Tiago Garcia.