

Mythreya Hardur Madhukeshwara

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Objective

I am a cybersecurity enthusiast who loves to break software. I am pursuing a masters in cybersecurity at University of Maryland. I am looking for **internships in IT security, cybersecurity, networking** and other related fields to gain hands on experience in the industry.

Education

University of Maryland-College Park, M.Eng in Cybersecurity Engineering

Expected May 2026

PES University-Bangalore, India, B.Tech in Computer Science Engineering with a Specialization in Networks and Cybersecurity

Dec 2020 - May 2024

GPA: 3.4

- **Coursework:** Network Security, Information Security, Cryptography, Blockchain, Cloud Security, Automotive Security, Computer Networks

Skills and Technologies

Python, Linux, C++, nmap, metasploit, msfvenom, Raspberry Pi, Docker, Git, Cisco Packet Tracer, AWS, Kali, Elastic Stack

Technical Experience

Elastic Stack SIEM configuration

Write Up

- Setup **Elastic Stack SIEM** in a home lab environment
- Demonstrated proficiency in **configuring elastic agents** in a kali linux VM and an ubuntu VM, for **log collection and forwarding** to SIEM for security event monitoring
- Acquired skills for **querying logs** in Elastic SIEM and **set up alerts** for nmap activity for both agents
- Fabricated over **60 alerts** to test working of SIEM

Home Lab and VPN setup with raspberry pi 5

- Installed and configured **Linux Ubuntu Server 24.04.1 LTS** on a raspberry pi 5
- **Created router rules** to allocate static IP to rpi5 and setup port forwarding rules
- Configured and deployed a VPN server on rpi5 with **pivpn, duckdns and wireguard**
- Launched Damn Vulnerable Web App (DVWA) and juice shop for web penetration practice

Malware Dev

Write Up

- Developed simple malware in **C++** that uses **self-injection and process injection** to execute shellcode
- Designed process injection that can inject malware to any running process' memory address and **execute in under 10ms**
- Generated shellcode of length of just **232 bytes** using **metasploit and msfvenom**.
- Used **Windows API (<Windows.h> in C++)** and it's respective functions like VirtualAllocEx(), CreateRemoteThread() to inject malware with memory usage of less than **100Kb**

probeX - port scanner

github link

- Built a lightweight CLI tool in **python** to scan a port on any host on the network in **less than 0.05s**, sometimes upto **10 times faster than nmap**
- Constructed raw packets from scratch using the **scapy python module**
- Implemented **source IP spoofing** and **fragmentation** to make it hard to be detected by a weak firewall

Awards and Milestones

Deep Learning-Based Cancer Classification from DNA Sequences: Prediction using End- to-End Neural Networks without feature selection

Team size: 4

Jan 2023 - Feb 2024

- **Best Paper Award** at ICMCER 2024 Conference
- Trained a Bi-LSTM model and achieved **92.1% accuracy**

Founding member of startup: EthnoRent

Team size: 6

- Created a rental solution that cuts down cost of ethnic wear by **90%**
- Pre-incubated at **E-CELL Shark-Tank India**

Aug 2021 - May 2022

Certifications

CompTIA Security+

Expected Nov 2024

OSCP

Expected Jan 2025

Qualys Vulnerability Management

Simplilearn

Cybersecurity Foundations: Governance, Risk, Compliance (GRC)

LinkedIn

LFD103 (Linux Kernel Development)

The Linux Foundation