

# 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

## Projects

### 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 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 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 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

## Achievements

**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

Aug 2021 - May 2022

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

## Skills and Technologies

Python, C, C++, Java, Linux, nmap, metasploit, msfvenom, netexec, evil-winrm, john the ripper, OSINT, SIEM, Wireshark, Raspberry Pi, Docker, Git, Vim, FL Studio, Photoshop, Premier Pro, Blender, Cisco Packet Tracer, MIPS-Assembly, Solidity, AWS, Azure, Kali, Elastic Stack

## Certifications

**CompTIA Security+**

Expected Nov 2024

**OSCP**

Expected Jan 2025

**LFD103 (Linux Kernel Development)**

The Linux Foundation

**Ethical Hacking**

Simplelearn

**Cybersecurity Foundations: Governance, Risk, Compliance (GRC)**

LinkedIn