

Tarun Ayyagari

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EDUCATION

Masters in Science Computer Science May 2024
Arizona State University, Tempe, AZ 8.00 CGPA

Relevant Coursework: Information Assurance and Security, Software Security, Advanced Computer Network Security, Computer and Network Forensics, Applied Cryptography, Computer Systems Security, Computer Systems Security

B.Tech. Computer Science and Engineering May 2022
National Institute of Technology Calicut, Kerala, India 8.16 CGPA

Relevant Coursework: Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Security, Computer Security Lab, Number Theory and Cryptography, Computer Networks, Computer Networks Lab

TECHNICAL SKILLS

Certifications: CompTIA Security+

Programming Languages: C, C++, C#, Python, JavaScript, Bash, shell scripting, x86 assembly

Tools, Databases, and OS: PostgreSQL, MySQL, Ansible, Git, GitHub, Windows, Unix/Linux, gdb, vagrant, VMware, VirtualBox

Computer Security: Burpsuite, Metasploit, Pfsense, Wireshark, tcpdump, Tor, IDA, gdb, linux sandboxing, binary reverse engineering, binary exploitation, x86 assembly, Ghidra, Binary Ninja, Procmon, angr, tcpview, x64dbg

Forensic Analysis: ProDiscover, FTK Imager, dd, Active Disk Editor, kitpishr, hexed.it, Autopsy, Volatility

PROFESSIONAL EXPERIENCE

Siemens Gamesa Renewable Energy, Orlando, USA: SCADA Engineer 03/2024 - Present

- Performed installation, upgrades and maintenance on SCADA systems deployed in wind farms.
- Handled troubleshooting and configuration of network equipment including **Cisco switches, routers and firewalls**
- Applied tools like **wireshark, tcpdump, analyzed DHCP and DNS configurations** to troubleshoot communication issues
- Facilitated **cybersecurity updates/ patches** for SCADA systems

EdPlus at ASU, Tempe, USA: Unity Developer Assistant (Part Time) 12/2022 - 03/2024

- Developed Extended Reality (XR) experiences for ASU Online courses in **Unity**
- Worked with Dreamscape Learn (DSL) to deliver immersive educational experiences
- Responsible for planning and implementing game functionality and VFX, identifying bottlenecks and ensuring quality

Cisco Systems, Bangalore, India: Technical Undergraduate Intern 05/2021 - 07/2021

- Developed a tool for automation of deployment of virtual switches and routers on VMware ESXi server using **Python** and **Ansible**
- Formulated a **Python** script to automate the configuration of deployed virtual machines

RELEVANT PROJECTS

pwn.college, Course Fall 2023

- Exploited vulnerable Linux binaries and web servers** in a **capture-the-flag** format
- Utilized tools like **python, C, x86 assembly, gdb, IDA, wireshark, tcpdump, netcat, curl** to analyze and pwn binaries
- Completed course to earn yellow belt status

Malware Analysis Summer 2024

- Reverse engineered** and analyzed the working of **live malware** samples in virtual lab using REMnux and FlareVM
- Applied tools like **PEStudio, Virustotal, angr, IDA, Ghidra** to perform static analysis
- Analyzed dynamic behavior using **procmon, tcpview, x64dbg, wireshark**

Attacking Connection Tracking Frameworks as used by Virtual Private Networks, Research Paper Spring 2024

- Analyzed the impact of CVE-2021-3773 on VPN servers with separate exit and entry IP addresses
- Explored a vulnerability in **Linux connection tracking system** that allows port override on VPNs

Packet Analysis with Wireshark, Course Project Spring 2023

- Analyzed **packet captures** from previous attacks using **Wireshark** and **tcpdump**
- Identified vulnerabilities exploited in the attacks
- Detected attack patterns and methods to circumvent detection

Pfsense Firewall, Course Project Fall 2021

- Deployed a **local area network using virtual machines**
- Implemented a **firewall using Pfsense and additional packages**
- Setup **firewall rules, blacklists, rate limiters, NIDS** using **Snort** and **firewall logs**