Parthiv Kumar Nikku

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Objective

To leverage my practical skills in network and web security to contribute to real-world CyberSecurity solutions and awareness-driven defense strategies.

Education

Amrita Vishwa Vidyapeetham   2022 – 2026 (Expected)

Bachelors of Technology in **Computer Science with specialization in Cyber Security**

- **Coursework:** Computer Networks, Network Security, Cryptography, Digital Forensics, Secure Coding, IoT, System Security, Operating Systems, Distributed Systems & Cloud Computing

Experience

Operating Systems Research Intern, LG Soft India   Jun 2025 - Present

- Designed and Developed a Light weight container orchestration technology for Linux systems similar to docker with simplicity and performance.
- The system is built with security-first mindset where all the security specifications for a container are met.

VAPT Intern, **Bharat Electronics Ltd** | Certificate   May 2025 – Jun 2025

- Scanned and exploited vulnerabilities on Internal websites and reported to the respective departments and *reduced 80% of attack vectors*.
- Implemented an STIG automation tool that can be used to test the windows server against hardening rules.
- Explored their architecture and impressed by their application of **data diode** and wanted to work further on that area.

TryHackMe | TryHackMe

- Actively participating & written and documented writeups for all completed rooms on GitHub-TryHackMe

Responsible Disclosures

CERTIn-64284725   03 Dec 2025

- Discovered a production stack-trace exposure vulnerability on a Indian Government Exam Portal, NTA demonstrating exposure of backend server paths and SQL queries.
- Performed responsible disclosure to CERT-In, resulting in formal acknowledgment and active remediation (Ref: CERTIn-64284725).

CVE-2025-66683   17 Nov 2025

- **Product**: CarRentalMS (by vendor Mart Mbithi)
- The application is vulnerable to CSRF, which allows an attacker to trick a victim into unknowingly change passwords or updating user profiles.

Projects

Data Diode - An Hardware Enforced Firewall*   Final Year Project - Current

- Working on Data Diode that enables the one-way communication which is considered to be the ultimate firewall.
- This solution can completely eliminate data exfiltration even in the event of a malware compromise.
- Implemented a Data-Diode using RS-232

IoT-based Smart Home Intrusion Detection System | Report   Apr 2025

- Built a honeypot using Raspberry Pi to detect and redirect attackers performing port scans.
- Developed a virtual wireless access point and DHCP server to simulate a real network environment for threat analysis.
- Configured iptables rules to monitor network traffic and reroute malicious requests to a honeypot server.

WiFiSnipe - An WiFi Network Security Testing Tool |*Self Research Project*| GitHub   Apr 2025

- Initiated project WiFiSnipe to make network penetration testing easy and automated
- Scans nearby networks, perform targeted jamming, or capture WPA/WPA2 handshakes for password cracking.

Malware Analysis | *Self Research Project* | GitHub

- Exploring and implementing various types of malware including ransomware, adware, worms, and viruses.

Socket Programming | *Computer Networks* | GitHub   Aug 2024

- Developed a program to study server-client communication over the internet using sockets.

Skills & Abilities

- **Programming & Development:** C, C++, Rust, Bash Scripting, Python, SQL, HTML, CSS, JavaScript, Git, GitHub, MySQL, SDLC
- **Cybersecurity & Networking:** Kali Linux, Wireshark, Wi-Fi Hacking, ARP Spoofing, Nmap, Metasploit, Burp Suite, OSINT, VAPT, Digital Forensics, Password Cracking, Web Application Security, Cisco Packet Tracer, Bash Scripting, Operating Systems, John the Ripper, Hashcat, Aircrack-ng, Wifite, SSH, Frama-C, Valgrind, Bug Bounty
- **Security & Compliance:** Risk Management and Assessment, STRIDE, DREAD, Threat Modeling, CVSS, CVE, CWE, ISO27001, GDPR, HIPPA, PCIDSS, SOX, STIG Hardening, NIST
- **OSINT** Spiderfoot, Recon-ng, WpScan
- **Operating Systems:** Windows, Linux(Kali Linux, Parrot OS)
- **Analytical Skills:** Data Organization, Computer Proficiency, Researching, Strategic Thinking, Problem Solving and Analysis, Team Building, English speaking, Team player

Certifications

- Certified Ethical Hacker (CEH) - EC-Council, Credential: ECC1497263058 (Dec 2025) [Link]
- AWS academy Graduate - Cloud Foundations - AWS Academy (Sep 2025) [Link]
- Cloud Security Fundamentals - Palo Alto Networks Cybersecurity Acadamy (Aug 10, 2025), Credential: dIDt2sAoJC [Link]
- Networking Basics – Cisco Networking Academy (Jul 2024) [Link]
- Ethical Hacking Essentials (EHE) – EC-Council through Coursera (Nov 27, 2024) [Link]
- Certified Cyber Crime Intervention Officer – ISAC (Jul 2024) [Link]
- Hands-on Linux Command Line – EC-Council (Jan 2024) [Link]
- Reverse Engineering using Memory Hacking – EC-Council (Jun 2024) [Link]
- Certified in Data Analytics with Excel – CIR Amrita (Oct 2023 – Feb 2024) [Link]

Research Interests

Wireless Network Security   In Progress

- Focused on advancing expertise in computer networks and network security, with particular emphasis on wireless communication environments.

Awards and Extracurricular Activities

CTF Achievements, IIT Bombay – TrustLab [Certificate'23] [Certificate'25]   Oct 2023; Dec 2025

- Ranked 37th out of 800+ teams nationwide in the initial CTF; qualified for Round 2 and placed 31st among 50 teams.
- In a subsequent CTF, secured 100th position in the preliminary round and achieved 26th place in the onsite final.

CTF Achievement, Amrita Vishwa Vidyapeetham – ACN [Certificate]   Oct 2023

- **Ranked 6th** out of 132 participants.

AIC Raise Hackathon [Certificate]   Feb 2025

- Government-sponsored hardware hackathon; secured **14th** place among **80** teams.