

VASANTHAVANAN M

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EDUCATION

University of Maryland, A. James Clark School of Engineering

College Park, MD, USA

Aug 2023 - May 2025

- **Master of Engineering, Cybersecurity.**
- relevant coursework: hacking of C programs & Unix binaries, networks and protocols, cloud security
- upcoming coursework: penetration testing, TCP IP networking, digital forensics incidence response, software defined networking

Anna University, Thiagarajar College of Engineering (TCE)

Madurai, TN, India

Jul 2016 - Jun 2020

- **Bachelor of Technology (B.Tech), Information Technology.**
- special interest group (SIG): information security & privacy
- relevant coursework: computer networks, DBMS, offensive security, ethical hacking, network security, system administration.

PROFESSIONAL EXPERIENCE

Safer Internet Project

Perth, Australia

Security Analyst (Experience: 8 Months) [Remote]

Nov 2022 – Jun 2023

- produced vulnerability assessments and generated actionable reports that enabled timely mitigation of identified vulnerabilities.
- applied black-box penetration testing skills to address vulnerabilities leading to 20% reduction in potential security breaches.
- conducted OSINT investigations using social engineering methodologies resulting in the discovery of critical information leaks, enabling mitigation measures to safeguard sensitive data.

IBM India Private Limited

Bangalore, KA, India

Software Developer, CIO-SIS (Experience: 23 Months)

Jan 2020 – Nov 2021

- developed interactive web applications using Angular and Laravel, resulting in a 40% increase in user engagement.
- teamed up with cross-functional teams to integrate secret server in CUST-RI Scala service, reducing unauthorized access.
- implemented authentication and authorization feature in CUST-RI Scala service, improving access control for over 5000 users.
- standardized to test driven development (TDD) on achieving 80% code coverage meeting the industry standard.

RESEARCH EXPERIENCE

IBM Patents and Innovation

Bangalore, KA, India

Topic: Data Model Standardisation using Hyper Ledger Fabric Blockchain

Apr 2021 - Sep 2021

- led a collaborative research project in support with colleagues leading to the submission of a patent to IBM in 2021.
- architected cutting-edge intelligent blockchain network, incorporating attribute rules to support data model integrity yielding a enhanced system reliability.
- conducted research on enhancing the coverage rules, and publishing visual data model diagrams from the DDLs.
- collaborated with developers to create a database structure across all FMS modules, reducing data errors by 25%.

ACADEMIC PROJECTS

Zero Hunger using Ethereum Blockchain ([Github](#))

Jun 2019 - Aug 2019

- designed Ethereum based automated food assistance system that donates food to people using decentralized authority, integrating PoA authentication and IPFS client for all stakeholders.
- maintained public ledgers of transactions to view every participant's state of contributions and activities, resulting in a 100% increase in ledger transparency and accountability.
- devised a gamified rewards system that provided incentive to volunteers, provoking a 70% increase in participation rates.

AR-Bots using Augmented Reality

Aug 2018 - Sep 2018

- collaborated with a team of developers to integrate the augmented character feature into the AR-Bots tour guide project, leading to a 60% increase in positive feedback.
- engineered a seamless user experience by converting user's response to strings, enhancing a low-level latency in communication.

SKILLS

- **Languages:** Scripting - Python, Bash Shell. Programming - C, C++, Basics of Java.
- **Network Skills:** Firewalls, Router, Switches, Troubleshooting, TCP/IP, DNS, IDS/IPS, VPN.
- **Competencies:** Penetration Testing, Vulnerability Assessment, Reconnaissance, Scanning, Privilege Escalation, Network Security, Agile Methodologies, Secure Code Review, OWASP top10, SANS top 25, MITRE ATT&CK.
- **PenTesting tools:** Network Mapper (Nmap), Wireshark, Tcpdump, Burp Suite, ZAP, Metasploit, SQLMap, Nessus, Mimikatz, BeEF, Shodan, Hydra, Autopsy, Hashcat, Snort.
- **Soft Skills:** Problem Solving, Decision Making, Strong Communication and Interpersonal, Presentation, Time Management

CERTIFICATIONS

- **CompTIA Network+** (verify: [Q85MJ88F734119GZ](#))
- **CompTIA Security+** (verify: [QGSWZKZP0DFQ19G3](#))
- **eLearnSecurity Junior Penetration Tester (eJPT)** (verify: [6119394](#))
- **Certified Ethical Hacker (CEH)** (verify: [ECC1982743650](#))