

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 (saferinternetproject.com.au)

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 (www.ibm.com/in-en)

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](https://github.com))

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.
- **Technology & Operating Systems:** Blockchain (Ethereum, Hyperledger), React, Angular, Kali Linux, Mac OS, Windows.
- **PenTesting tools:** Network Mapper (Nmap), Wireshark, Tcpdump, Burp Suite, ZAP, Metasploit, SQLMap, Nessus, Mimikatz, BeEF, Shodan, Hydra, Autopsy, Hashcat, Snort.

CERTIFICATIONS

- **CompTIA Network+** (verify: [Q85MJ88F734119GZ](https://www.certiport.com/certification/verify/Q85MJ88F734119GZ))
- **CompTIA Security+** (verify: [QGSWZKZP0DFQ19G3](https://www.certiport.com/certification/verify/QGSWZKZP0DFQ19G3))
- **eLearnSecurity Junior Penetration Tester (eJPT)** (verify: [6119394](https://www.elearnsecurity.com/certification/verify/6119394))
- **Certified Ethical Hacker (CEH)** (verify: [ECC1982743650](https://www.eccouncil.org/certification/verify/ECC1982743650))