OM VENUGOPAL

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Education

University of Maryland   **Aug 2021 – May 2023**
Master of Engineering in Cybersecurity, GPA : 3.8   *College Park, MD*
Network Security, Network Protocols, Cloud Security, Secure Operating System
Penetration Testing, Digital Forensics & Incidence Response, Information Assurance

PSG College of Arts & Science   **Aug 2017 – June 2020**
Bachelor of Science in Computer Science   *India*

Certificates

- Jr. Penetration Tester - TryHackMe

Experience

University of Maryland   **Jan 2023 – May 2023**
Graduate Teaching Assistant   *College Park, MD*
- Assisted Prof. Majid Raissi-Dehkordi in ENPM693 - Network Security course for 142 students by holding office hours, drafting pratical labs in basic encryption techniques, authentication protocols, and data confidentiality and integrity.

University of Maryland   **Aug 2022 – Dec 2022**
Grader   *College Park, MD*
- Collaborated with Prof. Majid Raissi-Dehkordi in ENPM694 - Network & Protocols to ensure consistent grading standards and evaluated and graded assignments, exams, and projects.

The NewYork Public Library   **Jun 2022 – Aug 2022**
Cybersecurity Intern   *Manhattan, NY*
- Performed intricate network analysis, scanning 40+ endpoints; identified & mitigated dormant vulnerabilities saving up to 40-man hours of work per week.
- Conducted penetration & forensic investigations to validate 40+ servers with proprietary software and meet compliance objectives, reducing security threats by 12%.
- Possessed comprehensive knowledge of industry and government security standards and compliance requirements, including ISO 27000-series, NIST Risk Management Framework (RMF), PCI-DSS, HIPPA and FISMA.
- Assessed and monitored logs and alerts from diverse technologies, including SIEM, to proactively identify and mitigate potential security incidents.

Projects

Homelab | *VMWare, Kali Linux, ParrotOS, Windows Server* | **June 2022**
- Built and maintain a lab to test, upskill, and maintain an enterprise-grade environment. The lab uses a Hypervisor, pfsense, Security Onion, Windows Server, Metasploitable machines, Kali Linux Attacker, and more.

Vulnerability Management Lab | *Nessus, VMware, Network Scanning* | **June 2023**
- Implemented and operated a robust Vulnerability Management Function on sandbox networks, utilizing Nessus and Qualys scanning tools to identify, analyze, prioritize, and remediate vulnerabilities in the Windows 10 environment, while ensuring adherence to digital forensics best practices.

Cloud Migration Strategy for Scaling, Resiliency & Security | *AWS, Cloud Security* | **December 2022**
- Created a cloud migration strategy to ensure 99.999% uptime by using Load Balancers, VPC, CDN, NAT & Firewall.
- Improved development efficiency by integrating Continuous Integration and Continuous Delivery in SDLC.

Forensic Investigation | *SIFT, Autopsy, ParrotOS, Wireshark* | **December 2022**
- Executed effective digital forensic investigations, ensuring evidence integrity through proper chain of custody, preservation, and documentation.
- Identified and extracted key evidence from the confesticated hard disk, including system logs, file system structures, application data while analyzing malware traffic and identifying indicators of compromise (IOCs)

Penetration Test | *Privilege Escalation, Threat Hunting, Vulnerability Analysis* | **December 2021**
- Conducted a red team security assessment and gained root access by discovering exposed cloud credentials, configuration flaws, and unpatched systems exploitable with a critical CVE.

Technical Skills

Languages: Python, C++, C#, PHP, JavaScript, SQL, Shell Scripting, Powershell
Scanning: Nmap, Wireshark, Nessus, CrowdStrike, SIEM, Splunk, Orca Security, Autopsy
Exploitation: Burpsuite, Metasploit, MITRE ATT&CK, Penetration Testing, Threat Assessment
Technologies: AWS, Linux, Docker, Git, OAuth, LDAP, IAM, Azure, Cloud Infrastructure, TCP/IP, DNS
Security: Cryptography, Vulnerability Assessment, Incident Response, DLP, NIST CsF, ISO 27000, Security Controls