Parth Parmar

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Education

University of Maryland - College Park   **Aug. 2021 – May 2023**

Masters of Engineering in Cyber Security - 3.96 GPA   *College Park, Maryland*

Courses : Secure Coding, Penetration Testing, Cloud Security, Reverse Engineering, Network Security, Networks and Protocols, Hacking with C, Secure Operating Systems, Security Tools

Vishwakarma Government Engineering College   **Aug. 2016 – Sep 2020**

Bachelors of Engineering in Information Technology - 8.93 CGPA   *Ahmedabad, India*

Experience

UMIACS   **February 2022 – December 2022**

Research Assistant - Developer   *College Park, Maryland*

- Collaborated on 'Data Driven Security' research project focusing on metrics about exploitability of vulnerabilities, providing likelihood of a functional exploit being devised for CVEs in near future.
- Analyzed various data endpoints and wrote crawlers using python and tested on docker.
- Provided support for website and debug issues along with development of python modules for parsing and crawling, decreasing load time of website by nearly 70% using AWS.

Sophos   **June 2022 – August 2022**

Threat Analyst Intern   *College Park, Maryland*

- Secured thousands of customers from threats by working on detections with Managed Threat Response team.
- Resolved investigation cases and threat hunts in under 60 minutes.
- Shadowed various analysts working cases on investigations, Ops Review calls and health checks.
- Formulated Cyberchef recipes to reduce time analysts spent in de-obfuscation during investigations by 90%.
- Delivered a symposium on a novel supply chain attack around package managers, along with developing tools for hunting such activity in real time.

Tata Consultancy Services Ltd   **February 2021 – August 2021**

Assistant Systems Engineer   *Gandhinagar, India*

- Managed Alfresco content management solution globally for Sony Pictures Entertainment.
- Monitored 30 Production Servers and 10 QA Servers during release cycle, upgrade activities and ensured availability.
- Built secure Java and JavaScript based code modules for Alfresco. Initiated process improvement activities for performance enhancements and bug fixing.
- Awarded Alfresco champion for analyzing and fixing a multi-threaded batch job failure.

Open Source Contributions

Null - Open Security Community   **December 2019 – Present**

- Delivered two talks (1. Attacks on JWT 2. Hacking with Go) on monthly meetups and prepared a blog website to increase community reach on all social media platforms through content creation.
- Collaborated on development of GXSS 2.0 - A tool for employing parameter reflection to detect XSS made using Go lang. Developed an addon functionality allowing addition of custom headers and User-agent to requests.

Projects

NPM registry follower | *JavaScript, Bash*   **August 2022**

- Developed an automated registry follower for demonstration in symposium "Exploiting Package Managers: Attacks and Detection" with a goal to identify malicious packages in real time.
- Designed JavaScript code to collect data from public npm change stream and find IOCs for malicious packages using install scripts to get real time data.

Technical Skills

Certifications: OSCP (OS-101-50541), RHCSA- Redhat Certified System Administrator (ID-200-000024)
Languages: Python, Bash, Java, C/C++, Go lang, C#, JavaScript, SQL
Technologies/Frameworks: MITRE, Git, SAST/DAST, Metasploit, Mimikatz, PACU, Burpsuite, NMAP, OpenSSL, Kubernetes, Helm, AWS (EC2, Lambda, S3, DynamoDB, SQS), Nexus, Maven, Selenium
Competitions/Labs: Participated in various CTFs like PicoCTF, Hackthebox and Portswigger Academy