**ANCHAL RAHEJA**

**( CISSP | OSCP | GCFA | GCFR | GCIH )**

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**WORK EXPERIENCE**

**Security Engineer II, Amazon**  **Feb 2022 – Present**

* Developed an AI based security alert triage system using LLM with RAG to analyze historical data and SOP to automatically enrich security tickets for security analysts.
* Conducting regular risk assessment and remediation of the backend services hosted on cloud for over 70k AWS accounts.
* Designed and deployed clustered SIEM and SOAR environments as infrastructure as code providing high-availability and scalability.
* Created and fine-tuned advanced Splunk queries (SPL) to detect security threats and anomalies.
* Led the effort to reduce incident response times using continuous SOAR playbook developments by over 85%.
* Responsible for monitoring & responding to incidents related to Amazon Go store infrastructure.
* Responsible for providing technical analysis and remediation of assets on the network during active incident response engagements.
* Built custom python apps to integrate internal and 3rd party applications with the SOAR platform.
* Design Incident Response Plan documents for applications to detect, respond to, and recover from security incidents.

**Security Engineer, Apple**  **June 2021 – Feb 2022**

* Threat modeling and performing architectural risk assessments of internally developed applications and systems.
* Perform technical reviews of Security Advisories and other communications related to vulnerability disclosure and remediation.
* Conduct network, cloud, infrastructure, and application penetration tests to identify and/or validate vulnerabilities and attack chains.
* Developed python-based tools to enhance pentesting engagements.

**Cloud Security Engineer, Amazon**  **Jan 2021 – June 2021**

* Triage/assess security issues and engage with internal service teams to ensure timely remediation of issues, escalating internally as necessary to ensure appropriate levels of urgency and engagement.
* Acts as a subject matter expert (SME) for AWS security services like IAM, SAML, KMS, CloudTrial, Config, CloudHSM, ACM, Inspector, GuardDuty,and Macie.
* Experienced with Lambda, creating Cloud Watch alarms, configuring ELB and WAF for various use cases.
* Providing Security best practices and architecture on AWS environment, assist with API/SDK related issues within customer architectures.
* Designing and delivering security solutions in Cloud infrastructure based on Cloud security standards, governance, and control practices.

**Information Security Engineer II, Copart**  **Dec 2017 – Jan 2021**

* Trained team of 10 engineers to establish Threat Hunting program based on ATT&CK MITRE framework.
* Developed a python-based threat intel-gathering software to enrich SEIM and correlation rules.
* Proven technical experience in windows forensics, memory forensics, and malware analysis.
* Developed python-based SOAR tool to reduce incident response time from 2hrs to 10 mins.
* Developed security procedures, use cases, and enhanced security event logging process.
* Performed threat analysis of inbound network and host alerts, identified vulnerabilities, and recommended corrective measures.
* Developed a python-based application that performs automated identification, assessment, and vulnerability research of external corporate facing assets.
* Architected solution to provide MFA, credential scanning, private repo enforcement for non- enterprise GitHub Account.
* Automated AppLocker verification and validation for over 15,000 assets in the US and EU reducing the time from 3mo. to 8hrs.
* Launched password cracking campaign and cracked 60% hashes over a period of 48hrs.
* Created and fine-tuned Cisco Umbrella policies for the US, UK, and EU complying with GDPR.
* Deployed and validated Umbrella and CrowdStrike for 10,000 assets.
* Performed both Dynamic Application Security Testing (DAST) and Static Application Security Testing (SAST), filtering out false positives.
* Assessing the risk for discovered vulnerabilities and prioritizing them for developers.
* Developed POC's for vulnerabilities, explaining the root causes to management.
* Reduced application deployment time from Dev to Production by 30% and remediated SQL Injection, Buffer Overflows, XSRF, and misconfigurations.

**Graduate Research Assistant, UTA**  **Aug 2017 – Aug 2018**

* Developed machine learning based early-stage malware detection techniques using hardware performance counter with a 99.13% detection rate.
* Built python tool to collect over 4,000 malware samples for building signatures based on hardware performance counters.

**Full Stack Dev, Computer Sec Club, UTA** **Aug 2016 – Jan 2017**

* Developed Flask based web app with member login, team events, and educational videos for the club.

**Business Development Associate, BYJU’s** **Jan 2016 – Jul 2016**

* Architected an energy-efficient task offloading system with distributed computing power as well as privacy protection.
* Ported data onto the cloud to solve security and energy consumption problems.

**Application Intern, Aricent** **May 2014 – June 2014**

* Reviewed and Assisted with security policies, procedures, standards, and guidelines.
* Developed asset request management system.

**TECHNICAL SKILLS**

Languages : Python, PowerShell, C, C++, PHP.

Web Technology : HTML5, CSS, XML, JavaScript, Flask, Bootstrap.

Security Tools : CrowdStrike, Cylance, Endgame, Mimecast, NMap, Wireshark, Hashcat, BurpSuite, Appspider,  
 Checkmarx, Nessus Tenable, Metasploit, Umbrella, Lansweeper, Sumologic, Graylog, InsightVM, …………………………….Volatility, FTK, Fortinet, Splunk, SOAR

Operating System : Windows, Linux, macOS, Kali.

**Open-Source Projects**

**Nessus Report Generator Python, Selenium**

* Created a custom application that reduced vulnerability technical and executive reporting by 95% for over 4000 systems through automation.

**Recon-X Python, AWS, REST API, NMap**

* Developed a python tool that validates the organization’s external-facing assets, which included domain names, IP addresses, open ports, and geo-locations by fetching and correlating results from Shodan, Google Dorks and performing NMap scans.

**Bot Shield Python, Sumologic, Incapsula**

* Developed custom application to query API for a malicious IP address and perform automated analysis and blocking via WAF.
* Analysis was done using SIEM data analyzed against public blacklist repo and feeding the results to WAF.

**E-Commerce Store PHP, CodeIgniter, MySQL**

* Developed a full-stack web application using PHP and MySQL on an Apache web server.
* Developed a backend database that kept track of user inventory and user data over a secure channel login system.

**Ride Share** **Python, MySQL, Bootstrap**

* Developed a web application during a 24-hour hackathon which connects people having the same destination
* Application was developed during the Houston Flood to assist those in need of transportation.

**Certifications**

* GCFR - GIAC Cloud Forensics Responder
* GCIH - GIAC Certified Incident Handler Certification
* CISSP - Certified Information Systems Security Professional
* OSCP - Offensive Security Certified Professional
* AWS Cloud Practitioner
* GCFA - GIAC Certified Forensics Analyst - 16786
* CEH - Certified Ethical Hacker, ECC4759823160.

**Publication and Presentations**

* Manage Your Attack Surface on a Budget BSides Las Vegas 2021

<https://www.youtube.com/watch?v=PGrdEqU_V4c>

* Malware Early-Stage Detection Using Machine Learning on Hardware Performance Counters

<https://rc.library.uta.edu/uta-ir/bitstream/handle/10106/27675/RAHEJA-THESIS-2018.pdf>

**EDUCATION**

**The University of Texas at Arlington**  **August 2018**

Master of Science in Computer Science **(GPA: 3.87)**

Thesis -Malware Early-Stage Detection Using Machine Learning on Hardware Performance Counters

**Manipal University Jaipur**  **June2016** Bachelor of Technology in Computer Science (**GPA: 3.5**)