

Shourya Sai Macha

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SUMMARY

Computer Information Systems student at the University of Houston with hands-on experience in cybersecurity, IT support, and full-stack development. Skilled in Python, C++, SQL, and threat detection tools with projects in secure logging, phishing detection, and database management. Pursuing CompTIA Security+, Network+, and AWS Cloud certifications while seeking Summer 2026 internships in cybersecurity and networking.

EDUCATION

University of Houston, Houston, Texas
Bachelor of Science in Computer Information Systems

Dec 2026
GPA: 3.425

SKILLS

Programming Languages: Python, C++, Flask, Node.js, JavaScript, SQL (MySQL|PostgreSQL|SQLite), PowerShell, Bash, JSON, YAML, REST APIs, Automation Scripting

Cybersecurity & Systems: Microsoft suite, Pen-Testing, Vulnerability Assessment, Network Security, Linux Administration, IAM, Cloud Security (AWS | Azure), Digital Forensics, Incident Response, SIEM (Wazuh, Splunk, ELK), EDR, Threat Modeling, NIST CSF, MITRE ATT&CK, SIEM Log Analysis, Risk Assessment, SOC Reporting, ISO 27001, SOC 2, PCI-DSS, GDPR.

Tools & Frameworks: Burp Suite, Metasploit, sqlmap, Nmap, Wireshark, Hydra, Nessus, OpenVAS, Docker, Kubernetes, Terraform, pfSense, Git, JIRA

EXPERIENCE

MD Anderson Library, University of Houston

Feb 2024 – Present

*Student Assistant **

- Assisted over 50+ library patrons daily by troubleshooting technical issues across digital systems, print services, and computer networks—leveraging analytical and basic network security principles to resolve issues efficiently.
- Guided students and faculty in navigating library databases (e.g., JSTOR, ProQuest, and EBSCOhost) and research tools, improving information retrieval speed and user satisfaction by ensuring secure and efficient data access.
- Organized and maintained 10,000+ physical and digital resources, including re-shelving, inventory updates, and cataloging, to ensure consistent accessibility and an orderly, information-secure environment.
- Handled and updated confidential patron and inventory data in compliance with University of Houston data protection policies, demonstrating precision, integrity, and discretion in all record-keeping activities

PROJECTS

Secure Activity Tracking & Audit Logging System | Python, Flask, SQLite

Developed a tamper-proof logging system using cryptographic chaining to ensure 100% log integrity and traceability across more than 10,000 security events. Built real-time agents to collect and submit system activity logs from 50+ endpoints, achieving instant event visibility and audit readiness. Designed compliance-ready reporting tools that improved forensic analysis efficiency by 35% and aligned with SIEM and SOC 2 audit standards. <https://github.com/mauLanarhodes/secure-activity-tracking-system.git>

Email Phishing Detection Tool | Python, VirusTotal API

Engineered a script to analyze 500+ .eml files, detecting suspicious headers (SPF/DKIM/DMARC) and extracting hidden URLs from HTML and plain text. Integrated VirusTotal API to automate malware link scans, reducing manual threat-review time by 40% and increasing detection accuracy by 30%. Generated automated threat-classification reports that enhanced visibility into phishing trends for simulated SOC workflows. <https://github.com/mauLanarhodes/Email-Phishing-Detection-Analysis.git>

MITRE ATT&CK TTP Mapper | Python Project

Built a threat-mapping engine that processed 1,200+ incident records to correlate IOCs with relevant MITRE ATT&CK techniques. Automated IOC extraction and CSV report generation, cutting manual analysis time by 60% and enabling instant MITRE Navigator visualization. Improved incident-response accuracy by 25% through systematic TTP correlation and structured threat intelligence analysis. <https://github.com/mauLanarhodes/MITRE-ATT-CK-TTP-Mapper.git>

Senior Citizen Facility – Room Occupancy System | Python, Flask, Node.js, MySQL, EJS

Designed and deployed a full-stack facility management system to monitor 200+ residents and 100+ rooms across multiple facility floors. Built REST APIs in Flask handling CRUD operations with sub-100 ms query latency, connected to a Node.js + EJS frontend backed by MySQL on AWS RDS. Implemented role-based authentication, cascading deletes, and live dashboard views, increasing administrative efficiency by 45%. <https://github.com/mauLanarhodes/final-project-mauLanarhodes.git>

CERTIFICATIONS

CompTIA Network+ and CompTIA Security+ | 2025
AWS Cloud Practitioner 2026

RELEVANT COURSEWORK & FRAMEWORKS

Network Security | Systems Analysis & Design | Database Management | PCI DSS | SOX | GLBA | NIST CSF & SP 800-53