

ADITYA CHOORAMANI

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PROFESSIONAL SUMMARY

Systems & Security Student specializing in **Embedded Linux** and **Cloud Infrastructure Security**. Proven expertise in developing **Serverless Architectures** and applying **Least Privilege IAM** governance. Deeply experienced in C/Python paradigms and Linux environments (OpenWrt/Freifunk), currently focused on **Vulnerability Research**, **Memory Safety**, and **Exploit Automation** within IoT and Edge deployments.

EDUCATION

Rajiv Academy for Technology and Management

Bachelor of Computer Applications (BCA)

Mathura, India

Expected July 2027

Mathura, India

St. Paul's Senior Secondary School

Class XII (Senior Secondary Education)

April 2024

PROJECTS

Sentinel Eye: Cloud-Native Threat Intelligence

Feb 2026

Key Tech: AWS (S3, DynamoDB, Lambda, SNS), API Gateway, Python, IAM Policies

- Architected a serverless backend on AWS to process 1.6GB of geospatial data for environmental monitoring.
- Secured cloud infrastructure utilizing strict Identity-Based Policies and Least Privilege IAM for Lambda execution.
- Engineered real-time alerting via AWS SNS and event-driven triggers for automated change detection.

Sagar Sahayak: Maritime Threat Detection (SIH)

Dec 2025

Key Tech: Python, CNN, Secure Storage, Encryption (TLS/SSL), Edge AI

- National Grand Finalist: Built a prototype surveillance solution for high-stakes maritime monitoring.
- Secured data handling against exfiltration using encrypted storage and strict RBAC mechanisms.
- Hardened AI inference pipelines and API Endpoints to ensure data integrity during real-time processing.

Falter Network Hardening Engine

Dec 2025

Key Tech: C, Shell, Linux Procd (Init System), Routing Automation, L3 Protocols

- Built a configuration engine to automate secure routing deployments and reduce the network attack surface.
- Leveraged hardware triggers via Linux Procd to manage system state and detect unauthorized node tampering.
- Optimized sensitive data protection by deploying RAM-backed storage ('tmpfs') for volatile execution environments.

TECHNICAL SKILLS

Systems & Backend: C, C++, Python, Bash, **Embedded Linux**, Systemd, GDB, POSIX API.

Cloud & Infra: AWS (S3, EC2, Lambda, DynamoDB), Docker, IAM Policy Management, API Gateway.

Security & Tooling: Vulnerability Research, Exploit Automation (**pwntools**), Reverse Engineering Basics, Firmware Analysis.

Networks & Crypto: TCP/IP, Routing Protocols, TLS/SSL, Wireshark, Nmap, **PKI Concepts**.

Specialized Tech: OpenWrt Ecosystem, Secure Boot Basics, Git/CI Workflows, **OWASP Top 10**.

ACHIEVEMENTS & CERTIFICATIONS

- Smart India Hackathon 2025: National Grand Finalist (Top 2% in National Security category).
- Cisco Networking Academy: Certified in **Introduction to Cybersecurity** and Network Essentials.
- Open Source Security: Recognized contributor to the Freifunk decentralized network ecosystem.

PROFESSIONAL COMPETENCIES

Core Strengths: Vulnerability Analysis, Secure Scripting, Low-level Debugging, Network Analysis, Cloud Identity Management, Incident Triage, Open Source Collaboration.