

# Harish Madhavan J U

+91 9092462181 | juharishmadhavan2005@gmail.com | linkedin.com/in/harishmadhavanju | github.com/madhavanrx18

## EDUCATION

### Amrita Vishwa Vidyapeetham

Oct 2022 – May 2026

*Bachelor of Technology in Computer Science (Specialization: Cybersecurity)*

*CGPA: 9.16 / 10.0*

- Relevant Coursework: Cloud Computing, Secure Coding, DevSecOps, Data Structures & Algorithms

## PROFESSIONAL EXPERIENCE

### Summer Intern

June 2025 – July 2025

*National Institute of Science Education and Research (NISER), Bhubaneswar, India*

- Developed a RESTful API to support secure communication between a central server and IoT relays deployed across campus.
- Containerized and deployed the system on AWS using Docker, applying secure configuration practices and basic fault tolerance.
- Implemented input validation and token-based authentication to reduce risks from common web vulnerabilities.

## TECHNICAL SKILLS

**Cloud Platforms:** AWS, Google Cloud Platform (GCP)

**Security Tools:** Wireshark, Burpsuite, Pacu, Metasploit, GitLeaks, Safety, Bandit

**DevSecOps:** Docker, Git, Linux, CI/CD

**Programming Languages:** Python, Bash, Go, C, C++, SQL

## PROJECTS

### Secure CI/CD pipeline | Jenkins, Docker, Python, SAST, SCA, Gitleaks, Semgrep

July 2025

- Developed a Python-based security automation tool integrating SCA, SAST, secrets detection, and IDOR checks; improved detection coverage across code, dependencies, and APIs in real-world repositories.
- Automated CVE enrichment and risk scoring (via NVD/OSV APIs, CVSS-based thresholds) to provide deployment-ready decisions (BLOCK/WARN/ALLOW), reducing manual vulnerability triage effort by 60%.
- Implemented SBOM generation and async scanning pipeline, cutting analysis time by 64% and ensuring reliable results even in repos lacking explicit dependency files.

### IAM Policy Analyzer CLI – AWS Security Automation Tool | Python, boto3

June 2025

- Automated auditing of 50+ IAM policies/roles, flagging CRITICAL risks like wildcard permissions and cross-account trusts that could enable privilege escalation or data exposure.
- Integrated CloudTrail log analysis and permission simulation, identifying up to 70% unused permissions and generating least-privilege policy suggestions to shrink the attack surface.
- Reduced manual IAM review time by 40% by producing JSON/CLI reports with prioritized risks and remediation steps, directly strengthening AWS account security posture.

### Static Ransomware Detection Tool | Python, YARA, PE Header Analysis

Dec 2024

- Built a GUI tool to perform static and dynamic ransomware analysis using PE headers, YARA Rules, VirusTotal integration.
- Automated IOC extraction (C2 domains, mutexes, shadow-copy deletion, suspicious APIs) to aid faster triage.

## CERTIFICATIONS

- ISC2 Certified in Cybersecurity (CC)
- Google Cloud Cybersecurity Certificate
- Palo Alto Networks: Cybersecurity Fundamentals; Cloud Security; Network Security; SOC Fundamentals
- Intro to AWS Pentesting by Tyler Ramsby
- AWS Cloud Practitioner [In Review]

## ORGANISATIONS

- ACN CTF 2K24
- 3 Days CTF Bootcamp