

Harish Madhavan J U

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EDUCATION

Amrita Vishwa Vidyapeetham

Oct 2022 – May 2026

B.Tech in Computer Science (Specialization: Cybersecurity)

CGPA: 9.16 / 10.0

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

PROFESSIONAL EXPERIENCE

Software Engineering Intern

June 2025 – July 2025

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

- Designed and developed RESTful APIs to facilitate communication between centralized servers and distributed WiFi-enabled relay modules.
- Deployed containerized microservices on AWS EC2 using Docker, ensuring scalable and fault-tolerant infrastructure across multiple buildings.
- Implemented input validation, logging, and modular architecture; conducted unit testing and debugging to ensure functionality and code maintainability.
- Collaborated in an agile environment using Git for version control and participated in documentation and sprint meetings.

TECHNICAL SKILLS

Languages: Python, C++, Java, Go, Bash, SQL

Web Development: HTML, CSS, Js

Databases: PostgreSQL, MongoDB

DevOps: Docker, Git, Jenkins, GitHub Actions, Linux

Cloud Platforms: AWS (EC2, S3, IAM), GCP

Security Tools: Bandit, Safety, Gitleaks, Wireshark, Burpsuite

PROJECTS

Security-Aware CI/CD Pipeline | *Python, Jenkins, Docker, GitHub Actions*

July 2025

- Developed a Python-based tool integrating Bandit, Gitleaks, and Safety to perform security scans on 50+ repositories.
- Automated CVE scoring with NVD API, enhancing risk evaluation during deployments and reducing false positives by 25%.
- Integrated with GitHub Actions, Jenkins, and GitLab CI pipelines; reduced vulnerability triage and review time by 30%.

IAM Policy Analyzer CLI | *Python, boto3, AWS*

June 2025

- Built a command-line tool to analyze 5,000+ AWS IAM policies, identifying and flagging 100+ overprivileged roles.
- Used CloudTrail logs to generate least-privilege policy suggestions, improving security posture and reducing review time by 90%.
- Output included JSON and markdown reports with severity scores for developers and security engineers.

Static Malware Detection Tool | *Python, YARA, PE Header Analysis*

Dec 2024

- Created a Python CLI tool to classify Windows executables as ransomware or benign using YARA rules and PE header inspection.
- Integrated JSON output and severity levels to support automated malware triage; reduced analysis time from 30+ mins to under 5 mins per sample.

CERTIFICATIONS

ISC2 Certified in Cybersecurity (CC)

Google Cloud Cybersecurity Certificate

Palo Alto Networks: Cybersecurity Fundamentals, Cloud Security, SOC Fundamentals

Intro to AWS Pentesting by Tyler Ramsby

AWS Cloud Practitioner (*In Review*)