

VARSHA

Mangaluru, Karnataka

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Education

Sahyadri College of Engineering and Management

Aug. 2023 – Jun. 2027

Bachelor of Engineering, Information Science and Engineering, CGPA: 9.02

Mangaluru, Karnataka

Core Coursework: Data Structures & Algorithms, Operating Systems, DBMS, Computer Networks, Object-Oriented Programming, Big Data Analytics, Artificial Intelligence & Machine Learning

Technical Skills

Languages: Python, Java, TypeScript, JavaScript, SQL

Backend: FastAPI, Flask, Node.js, Express

Frontend: React, Next.js

Databases: PostgreSQL, MySQL, SQLite, Redis

Tools & Technologies: Git, GitHub, REST APIs, WebSockets, Hugging Face, YOLOv8, Visual Studio Code

Projects

VoxelQ | YOLOv8n, ByteTrack, FastAPI, Redis, PostgreSQL, React/TypeScript

Jun. 2026 – Present

- Developed a real-time analytics platform that estimated crowd density and queue wait times using YOLOv8n and ByteTrack, enabling data-driven operational monitoring through occupancy metrics.
- Optimized the inference pipeline by eliminating repeated model loading and introducing a Redis-backed caching layer, improving system stability while delivering real-time occupancy insights.

AdaptiFlow | Next.js, React, TypeScript, FastAPI, YOLOv8, WebSockets

Mar. 2026 – Present

- Built interactive dashboards and emergency management interfaces for an AI-powered smart traffic management platform, enabling real-time monitoring and operational decision support.
- Implemented WebSocket-based real-time communication and MJPEG video streaming to support continuous traffic monitoring and live visualization of road conditions.

PayShield | Python, Flask, PostgreSQL, RSA Cryptography, JWT

Mar. 2026 – Apr. 2026

- Developed a secure UPI receipt verification platform to detect fraudulent payment screenshots and improve trust in digital payment workflows.
- Implemented RSA-2048 digital signatures, SHA-256 hashing, and JWT authentication to secure transaction verification and user authentication workflows.
- Designed REST APIs supporting QR-based receipt validation, GST invoice generation, and automated transaction verification services.

Experience

Sahyadri Open Source Community (SOSC)

Mar. 2025 – Present

Open Source Contributor, Executive Member & SOSWC Head

- Developed and shipped a multi-platform social media caption-generation feature for **PaperTrail** through REST API integration, collaborating with contributors via GitHub issue tracking, code reviews, and feature discussions.
- Engineered secure authentication modules for **Pomelo**, an open-source event management platform, following modular OOP-based component architecture; authored onboarding documentation adopted by new contributors.

Leadership & Activities

MINDS Association

July 2025 – Present

Joint Secretary, Dept. of Information Science and Engineering

- Coordinated technical, cultural, and community-building initiatives, including a 10-day departmental event series and student engagement activities across multiple student batches.

SOSWC (Sahyadri Open Source Women's Community)

Mar. 2025 – Present

Head

- Led initiatives promoting women in technology through workshops, mentorship, and open-source community engagement..
- Organized OpenSprint sessions engaging 80+ students and mentored 40+ first-time contributors in GitHub workflows and open-source contribution practices.