VED M PAWAR

+91-7829438056 vedpawar1410@gmail.com VedLinkedIn VedPawar1410

SOFTWARE ENGINEER — FULL STACK — JAVA — CLOUD — LLMS — RAG

Education

Vellore Institute of Technology, Vellore **September 2021 - July 2025**
B.Tech in Computer Science and Engineering *CGPA: 8.69/10.0*

Bangalore International Academy, Bangalore **2021**
Class XII (CBSE) *Percentage: 90*

Technical Skills

- **Languages: C++**, **Java**, **Python**, C#, JavaScript (ES6+), TypeScript, SQL, Bash/Shell
- **Frameworks & Libraries:** Spring Boot, Flask, React, Node.js, TensorFlow, PyTorch, JUnit, Pandas, NumPy
- **Engineering Practices: Telemetry & Logging**, **Secure Coding**, Code Reviews, CI/CD, TDD, Agile/Scrum
- **System Design: Microservices**, **Distributed Systems**, REST vs gRPC, Load Balancing, Caching, CAP Theorem
- **Cloud & Tools: GCP**, AWS, Azure, Docker, Kubernetes, Git, GitHub Actions, JIRA, Postman, Linux/Unix

Experience

General Motors Internship | **August 2023 – November 2023**
Machine Learning Intern *Bangalore*

- Developed Python automation scripts to proactively flag quality issues, collaborating with global stakeholders to refine **product features**.
- Documented technical specifications and user guides, facilitating the onboarding of new team members and ensuring long-term maintainability.

Projects

AI-Powered Adaptive Personality Engine and Memory System | | **December '2025**

- Designed and deployed a modular AI agent capability of long-term memory extraction from unstructured chat logs using Gemini 2.0 Flash and Pydantic for structured output validation.
- Engineered a "Personality Transformation" pipeline that dynamically alters the AI's response tone based on extracted user context, improving user engagement.
- Containerized the application using Docker and automated the CI/CD deployment pipeline to Render, ensuring scalable and reliable cloud hosting.

Sentiment Analysis of Online Reviews | | **July'2024**

- Architected a **Full Stack** web application using **Python (Flask)** and **Java** principles, adhering to MVC design patterns.
- Implemented a **secure RESTful API** with rate limiting and input validation to prevent common security vulnerabilities.

AI based Autonomous Surveillance System using Deep Learning | **January'2025**

- Developed an AI-powered surveillance system utilizing **Computer Vision** (YOLOv8, Faster R-CNN) for real-time anomaly detection.
- Optimized inference latency by 30% through model quantization and multi-threading, enabling real-time processing on edge devices.
- Achieved 84.45% AUC on the UCF-Crime dataset by iteratively testing architectural design options and validating hypotheses.

Anomaly Detection in Wearable Sensor Data using Machine Learning | **August'2024**

- Designed a robust anomaly detection pipeline for the PAMAP2 dataset, applying **least-access principles** to sensitive health data.
- Optimized data processing algorithms to $O(n \log n)$ complexity, ensuring the solution met **performance** and scalability requirements for high-frequency sensor streams.

Certifications

Google Cloud Digital Leader	Issued by Google	*View Certification*
AWS Cloud Practitioner Essentials	Issued by AWS	*View Certification*
Neural Networks and Deep Learning	Issued by Coursera	*View Certification*