

MANJITH REDDY

Software Developer | Full-Stack • Backend • IoT • AI Applications

Hyderabad, India | B.Tech – Data Science & AI | 2.5+ years experience

PROFESSIONAL SUMMARY

Full-stack software developer with 2.5+ years of experience building production systems across web, backend, mobile, IoT, and data-intensive applications. Experienced in end-to-end ownership from frontend and API development through database architecture, device integration, deployment, performance optimization, and production support. Strong hands-on experience with React, React Native, .NET, Python/FastAPI, PostgreSQL, TimescaleDB, MSSQL, Docker, cloud infrastructure, real-time IoT data, and AI application integrations. Strong focus on scalable system design, reliable APIs, performance optimization, debugging, and practical problem solving.

CORE TECHNICAL SKILLS

Languages: Python, C#, JavaScript, SQL, Kotlin, HTML, CSS

Frontend & Mobile: React.js, React Native, WebView integration, Android/Kotlin

Backend & APIs: .NET, FastAPI, REST APIs

Databases: PostgreSQL, TimescaleDB, MSSQL

Messaging & Real-Time Systems: Kafka, MQTT, RabbitMQ

IoT & Edge: ESP-based devices, Arduino, Raspberry Pi, sensor integration, OTA updates

Cloud, DevOps & Tools: AWS EC2, Azure, Docker, Nginx, IIS, Ubuntu, Git

AI Application Development: OpenAI APIs, GPT, AI-assisted development with Cursor and Claude

PROFESSIONAL EXPERIENCE

Software Developer | *IST Technologies, Hyderabad, India* | Sept 2024 – Present

- Own end-to-end development of environmental monitoring systems spanning React frontends, .NET APIs, PostgreSQL/MSSQL databases, mobile workflows, and IoT device integration.
- Design scalable application and data architectures, including database schemas, API structures, time-series storage, and performance optimization for high-frequency sensor data.
- Proposed and implemented PostgreSQL with TimescaleDB for scalable time-series workloads in the Smarteco product.
- Developed AQI computation logic and multi-standard support, enabling the platform to support different environmental calculation frameworks.
- Built a custom averaging service to reduce database load and improve processing efficiency for sensor readings.
- Developed and maintained ESP-based device firmware, including OTA update workflows and remote firmware build processes.
- Built device onboarding and setup solutions using Kotlin Android and a web-based setup flow integrated with React Native through WebView communication.
- Investigated and resolved production bottlenecks across APIs, databases, and cloud infrastructure; handled debugging, monitoring, reliability issues, and direct client support.
- Researched Kafka- and MQTT-based architectures for real-time IoT ingestion and evaluated approaches for scalable sensor-data pipelines.
- Built AQI prediction services using Python and FastAPI and developed a WBGT full-stack system deployed on Raspberry Pi using FastAPI, sensor services, and Nginx.
- Worked on mobile application delivery and deep-link/app-link flows, including React Native integration and Android/Google Play deployment workflows.
- Used GPT, Cursor, and Claude as AI-assisted development tools for rapid prototyping, debugging, code generation, optimization, and solution validation.

Software Engineering Intern | *Actalyst, Hyderabad, India* | Jan 2023 – Oct 2023

- Built a data engineering pipeline to process and transfer machine-generated factory data using Kafka, Confluent, and DBT.
- Developed data visualization solutions using JavaScript and Python for manufacturing analytics.
- Developed and deployed a company website showcasing AI capabilities for the manufacturing industry using React, Python, Docker, and AWS.
- Integrated OpenAI APIs and ADK with base and advanced models to summarize and interpret structured and unstructured data.

Full-Stack Developer | *Effigo, Hyderabad, India* | Jun 2022 – Nov 2022

- Developed a web application using React.js after rapidly ramping up on the technology and application architecture.
- Designed and implemented a backend system from the ground up using FastAPI.

- Developed a B2B React Native mobile application for fish-market vendors and distributors.

SELECTED ENGINEERING PROJECTS

- Smarteco / AQMS – Full-stack environmental monitoring platform with real-time sensor ingestion, AQI calculations, multi-standard support, time-series storage, dashboards, device management, alerts, and mobile integration.
- WBGT Monitoring – Full-stack edge solution running on Raspberry Pi, integrating sensors with FastAPI services and Nginx for deployment.
- AQI Prediction Services – Python/FastAPI services supporting predictive environmental analytics and application-level insights.
- IoT Device Platform – ESP-based firmware, OTA updates, device onboarding, Android/Kotlin setup, React Native WebView communication, and cloud connectivity.

EDUCATION

B.Tech in Data Science and Artificial Intelligence | Woxsen University, Hyderabad | 2024

PROFILE FOCUS

Targeting Software Engineer, Full-Stack Engineer, Backend Engineer, IoT Software Engineer, IoT Platform Engineer, and AI Application Engineer roles. Strongest areas are application development, API engineering, database-backed systems, real-time IoT platforms, mobile/web integration, production debugging, and AI-enabled application development.