

Vathaluru Akhileswar Reddy

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Profile Summary

- Backend developer with strong experience building scalable, domain-driven backend systems using FastAPI and Spring Boot.
- Designed clean backend architectures with well-structured service layers and production-ready REST APIs.
- Built and integrated intelligent AI agents using LangGraph and LangChain with FastAPI backends, leveraging Retrieval-Augmented Generation (RAG) and vector search.

Technical Skills

Languages: Go, C, C++, Java, JavaScript, Python

Frameworks & AI Tools: FastAPI, Spring Boot, LangGraph, LangChain, React

AI/LLM Systems: Retrieval-Augmented Generation (RAG), Vector Search

Cloud & DevOps: AWS Lambda, Serverless Framework, Docker

Databases: MySQL, PostgreSQL, MongoDB, Redis

Version Control: Git, GitHub, GitLab

Education

KL University

Bachelor of Technology – Computer Science and Engineering (CGPA: 9.43)

Guntur, India

2021–2025

Experience

Ideylabs

Backend Developer

Hyderabad, India

2024–Present

Project: APEX – Transportation Back Office System

- Architected a FastAPI backend with domain-driven architecture supporting **3 core domains** including transportation operations, pricing/rating, and shipment management.
- Deployed a serverless FastAPI application on AWS Lambda using Serverless Framework with CI/CD pipelines via GitHub Actions.
- Integrated **4 external services** (SMC3, HERE.com, AWS S3, SES) and managed PostgreSQL persistence using SQLAlchemy ORM.

Project: HLF – Blockchain Transaction System

- Implemented **10+ RESTful APIs** in Go to store blockchain transactions and manage issue, redeem, and transfer operations.
- Engineered Go-based smart contracts (chaincode) for Hyperledger Fabric to enforce business logic across **5+ transaction workflows**.
- Led migration from a Corda-based blockchain system to Hyperledger Fabric, improving performance and interoperability.

Projects

Chat Bot:

- Engineered a full-stack AI chat application supporting **multi-threaded conversations** with PostgreSQL-backed chat history.
- Integrated OpenAI GPT-4 with custom tools (Tavily web search, date utilities) for real-time information retrieval.
- Designed a service-layer architecture using SQLAlchemy ORM to handle concurrent conversations with persistent message storage.

Budget Buddy:

- Created custom financial tools supporting income and expense tracking across configurable date ranges with analytics.
- Implemented a modular architecture using PostgreSQL, SQLAlchemy ORM, and dependency injection for database management.

Fitness AI Platform:

- Designed a microservices platform using Spring Boot, Eureka, and Spring Cloud Gateway with AI-powered recommendations.
- Implemented an event-driven architecture using RabbitMQ for asynchronous inter-service communication.
- Configured OAuth2 authentication and centralized configuration management.

ClearBG:

- Implemented a full-stack image background removal application using Spring Boot, React, and ClipDrop API.
- Integrated authentication workflows with webhook synchronization and JWT-based API security.
- Added a credit-based payment flow using Razorpay and reactive Spring WebClient for AI service interaction.

Linklytics:

- Developed a URL shortener with analytics using Spring Boot, React, Redis, and PostgreSQL.
- Established click-event tracking with date-range filtering for monitoring URL performance.
- Designed RESTful APIs with JWT authentication and role-based access control.

Real Estate Management System:

- Implemented a blockchain property management system using Hyperledger Fabric with Go-based smart contracts (chaincode).
- Applied composite key-based chaincode for user registration, property listing, and transaction recording.
- Designed RESTful APIs in Go for property operations, ownership transfer, and transaction history on a distributed ledger.

Coding

LeetCode:

- Solved **530+** problems across Easy, Medium, and Hard difficulty levels.
- Solved algorithmic challenges involving arrays, trees, graphs, recursion, and dynamic programming.

Certifications

Red Hat Certified Enterprise Application Developer (EX183):

- Validated expertise in Java EE application development, RESTful services, CDI, JPA, and JBoss EAP deployment.

Google Cloud Agentic AI Day (Hack2skill, 2025):

- Finalist — Top **700** out of **57,000+** participants in a national-level AI hackathon.
- Built an AI-powered monitoring system using Vertex AI, Gemini, Next.js, and ESP32 hardware within a 30-hour timeframe.