Lekkala Lalith Sai Kumar

Software Engineer

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SUMMARY

Software Engineer with hands-on experience building backend systems using Python, FastAPI, and Django. Strong foundation in data structures & algorithms, REST APIs, and database-backed services, with practical exposure to Docker, CI/CD, and distributed system fundamentals.

EDUCATION

Sree Rama Engineering College　Tirupati, AP
B.Tech in Artificial Intelligence and Data Science　*Oct 2022 – April 2026*

EXPERIENCE

Open Source Contributor　Dec 2025
Activist (GitHub)　*Remote*
- Contributed to **activist-org/activist** open-source platform via PR #1815
- Refactored 3 backend modules across 15 files to improve domain separation and maintainability
- Updated 5+ API contracts, shared type definitions, automated tests, and contributor documentation
- Participated in maintainer reviews and resolved CI failures before merge

Software Engineer Intern　Oct 2024 – May 2025
Proven Solution　*Remote*
- Developed and maintained 6+ backend API endpoints using Python and FastAPI for production workflows
- Decreased API response latency by 12% by removing redundant queries and adding PostgreSQL indexes
- Improved pipeline reliability by 10% by introducing stricter input validation and handling uncaught edge cases
- Wrote 30+ unit tests using pytest, validated APIs with Postman, and enforced checks via GitHub Actions CI
- Collaborated with senior engineers through code reviews while adhering to coding standards

PROJECTS

Financial Data Processing Backend | *FastAPI, PostgreSQL, Serverless Functions, Supabase*　Dec 2025 – Present
https://finsight.lalithsaikumar.me
- Architected a backend system to ingest and process live market data for 150+ NSE-listed stocks
- Created normalized PostgreSQL schemas (8+ tables) with ownership-based access control
- Implemented FastAPI services integrating 4 third-party APIs with retries, timeouts, and request validation
- Reduced redundant external API calls by 75% using hash-based response caching
- Analyzed architectural trade-offs around API rate limits (100 req/min), data growth, and cost scaling

Campus Information Retrieval Service | *Django, FastAPI, FAISS*　Sep 2025 – Oct 2025
- Developed backend service to answer campus-related queries over 250+ documents
- Designed vector indexing for 250+ documents, balancing retrieval accuracy and memory usage
- Lowered average response latency by 30% using caching and query normalization

Real-Time Risk Scoring Service | *Python, Flask, PostgreSQL*　Dec 2024 – May 2025
- Built a low-latency backend service to compute risk scores on continuous telemetry streams (1k+ events/day)
- Implemented preprocessing pipelines to handle missing or malformed fields in 15% of incoming events
- Improved throughput by 15% by optimizing feature extraction and memory usage

TECHNICAL SKILLS

Languages: Python, Java, C, SQL (PostgreSQL)
Backend Frameworks: FastAPI, Django, Flask
Backend & APIs: REST API Design, Request Validation, Authentication Basics
Databases: PostgreSQL, Relational Schema Design, Indexing, NoSQL Fundamentals (Redis)
DevOps & CI/CD: Docker, Git, GitHub Actions, Postman, Linux, AWS
Distributed Systems: Service Decomposition, API Rate Limiting, Fault Handling (Foundational)
Core CS: Data Structures and Algorithms, OOP, Operating Systems, DBMS

ACHIEVEMENTS

LeetCode Contest Rating: 2062 – Knight Tier

Elected President, Department Student Association; drove academic and technical initiatives