Siri Mahalaxmi Vemula

India
sirimahalaxmivemula@gmail.com   +91-9966318003

GitHub   LinkedIn   LeetCode   Portfolio

Objective

Backend-focused Software Engineer with strong fundamentals in **Data Structures, Algorithms, Object-Oriented Design, and Databases**. Experienced in building **scalable backend systems**, designing **RESTful APIs**, and delivering production-grade software with performance, reliability, and clean architecture in mind. Strong problem solver with hands-on experience in **Java**.

Education

B.Tech in Computer Science and Engineering
Malla Reddy College of Engineering   Expected June 2026
CGPA: 9.00 / 10.0

Technical Skills

Programming Languages: Java, Python, JavaScript, TypeScript, SQL
Computer Science Fundamentals: Data Structures & Algorithms, Object-Oriented Programming (OOP), System Design, DBMS, Operating Systems (Linux, Windows)
Backend & Frameworks: Spring Boot, FastAPI, Flask, REST APIs, JWT Authentication
Databases: PostgreSQL, MySQL, MongoDB
Testing: Java Automation Testing (JUnit)
DevOps & Cloud: Docker, Kubernetes (Concepts), AWS, GitHub Actions
Deployment Platforms: Vercel, Cloudflare Pages
Tools & OS: Git, GitHub, Linux, Postman

Projects

DataPulse – Real-Time Data & Schema Monitoring System (Link)   Jul 2025 – Nov 2025
Java, Python, FastAPI, PostgreSQL, Redis, Celery, React, GitHub Actions

- Designed and developed a scalable, event-driven backend system to detect schema drift and data anomalies in real time.
- Built modular REST APIs using FastAPI with JWT-based authentication and role-based access control.
- Implemented asynchronous task processing using Celery and Redis to handle high-frequency monitoring jobs efficiently.
- Architected a CI/CD pipeline using GitHub Actions to automate testing and deployment.
- Focused on clean abstractions, separation of concerns, and extensible architecture for long-term maintainability.

Justice Genie – AI-Powered Legal Assistant (Link)   Mar 2024 – Oct 2024
Java, Python, Flask, MongoDB, Redis, React

- Built a production-ready backend system for a multilingual legal chatbot serving 50+ internal users.
- Engineered an NLP pipeline to classify user queries and extract IPC sections, punishments, and case summaries.
- Designed RESTful APIs with efficient request handling and structured error management.
- Load-tested APIs with 300 concurrent users, sustaining 52K+ requests with zero failures.
- Achieved median latency of 8ms and 95th percentile latency of 19ms under peak load.

Problem Solving & DSA

- Strong understanding of arrays, hashing, recursion, stacks, queues, trees,time–space complexity, Advanced Data Structures
- Active problem solver on LeetCode and Codeforces, focusing on interview-oriented DSA patterns.

Certifications

- Cisco Certified Network Associate (CCNA – NetAcad)
- NVIDIA Deep Learning Certification
- AWS Training – Introduction to Generative AI
- Postman API Fundamentals Student Expert
- Intel Unnati Machine Learning Workshop (2024)

Achievements & Activities

- Participant – HackAPTS State-Level Hackathon (GeeksforGeeks @ ANITS)
- Team Member – Smart India Hackathon 2024 (Internal Round)
- Team Lead – Academic App Development Project
- Consistently maintaining top academic performance with CGPA 9.00