

# Lalitha Samyuktha Jayanthi

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Visakhapatnam

## Value Proposition

Data Science graduate with strong programming skills in Java Python. Passionate about backend development, with hands-on project experience in building scalable systems using technologies like Elasticsearch, Kafka, SQS, DynamoDB, and ElastiCache. Eager to contribute to innovative engineering teams by applying problem-solving abilities and enthusiasm for cloud-based solutions. Proficient in collaborative environments, code reviews, and optimizing performance for reliable backend services.

## Education

- B. Tech | CSE-Data Science | Avanthi Institute of Engineering and Technology | 2025 | 7.88 CGPA
- Intermediate | Sri Chaitanya Jr. College | 2021 | 9.12 CGPA
- Tenth | Sri Chaitanya School | 2019 | 9.5 CGPA

## Technical Proficiencies

- Programming Languages: Java, Go, Python
- Backend Technologies: Elasticsearch, Kafka, SQS, DynamoDB, ElastiCache
- Databases: SQL, NoSQL (DynamoDB)
- Cloud Platforms: AWS (SQS, DynamoDB, ElastiCache), Azure (Basics)
- Tools & Practices: Git, RESTful APIs, Microservices, Code Reviews, Debugging
- Soft Skills: Problem-Solving, Team Collaboration, Communication

## Projects

### Scalable E-Commerce Backend System (Personal Project, 2024)

- Designed and implemented a microservices-based backend for an e-commerce platform using Go and Java, handling user authentication, product search, and order processing.
- Integrated Elasticsearch for efficient full-text search and product recommendations, improving query response time by 40%.
- Utilized Kafka for real-time event streaming to manage inventory updates and notifications, ensuring data consistency across services.
- Deployed on AWS with SQS for message queuing and DynamoDB for NoSQL data storage, supporting high scalability for simulated peak loads of 1,000 users.
- Conducted code reviews and optimized performance by debugging bottlenecks, resulting in a 25% reduction in latency.

### Real-Time Analytics Dashboard (Personal Project, 2024)

- Developed a backend service in Java to process and analyze streaming data from IoT devices, using Kafka for data ingestion and ElastiCache (Redis) for caching frequently accessed metrics.
- Implemented data modeling with DynamoDB to store time-series data, enabling efficient querying and aggregation for dashboard visualizations.
- Incorporated SQS for asynchronous task processing, such as report generation, to handle scalability challenges during high-volume data influx.
- Collaborated with a team of 4 to architect the system, participating in design discussions and troubleshooting issues to achieve 99% uptime in simulations.
- Optimized code for maintainability, reducing bugs through rigorous testing and adherence to best practices.

### **Search Engine Prototype**

- Built a lightweight search engine backend in Go, leveraging Elasticsearch for indexing and querying large datasets of documents.
- Integrated DynamoDB for metadata storage and ElastiCache for query result caching, enhancing response speeds by 50% in benchmark tests.
- Used Kafka to stream log data for analytics and SQS for decoupling search indexing from the main application logic.
- Focused on backend development concepts like data modeling and API design, ensuring the system was scalable and fault-tolerant.
- Presented the project in a team setting, receiving feedback on architecture improvements and implementing optimizations for better performance.

## **Internships & Simulations**

- AI Intern – AIMER Society | 8 Weeks
- ML Intern – Indian Servers | 8 Weeks
- Data Science Intern – Yhills | 8 Weeks
- Data Science Intern – Prodigy | 4 Weeks
- Job Simulation – TCS | Forage Platform

## **Certifications**

- Infosys Springboard certification in Software Engineering and Agile development.
- Google Cloud Gen AI.
- Data Analytics by Jobaaj Learnings.
- SQL by Oracle.
- Java by Oracle.

## **Soft Skills and Additional Information**

- Strong enthusiasm for learning cutting-edge technologies and contributing to backend system design.
- Excellent in collaborative settings, with experience in team-based projects and code reviews.
- Basic familiarity with cloud platforms (AWS, Azure) and version control (Git).