

# KOONA SAI VAISHNAVI

Bangalore, Karnataka, India

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## Education

### B.Tech. – National Institute of Technology Rourkela

Bachelor of Technology in Ceramic Engineering

Nov 2020 – May 2024

CGPA: 7.78

## Certifications/Achievements

### AWS Certified Data Engineer – Associate

Oct 2024

Scalable Data Pipelines, Batch and Streaming Processing, Data Storage Design, Access Control, Cost Optimization

### AWS Certified Machine Learning Engineer – Associate

Jul 2025

ML System Architecture, Inference Workflows, CI/CD for ML, API serving, Versioning, Secure and Scalable ML systems.

## Experience

### Software Engineer

Jun 2024 – Present

FinTech Domain

Bangalore, India

- **Financial Risk Reporting Platform:** Designed and developed a scalable backend platform with modular services to automate enterprise credit and financial risk reporting workflows.
- Built SQL-driven analytics services, multi-period computation pipelines, and PostgreSQL REST APIs, supporting structured LLM outputs, data lineage, and resilient parsing to reduce analyst turnaround time and manual effort.
- **GCS Call Interpreter – Distributed Call Processing System:** Implemented a production-grade speech processing and analytics pipeline for large-scale customer support call data.
- Engineered asynchronous ingestion, metadata persistence with DynamoDB, vector-based semantic search services, and Bedrock-backed insight generation, improving call review efficiency by 60% and insight retrieval accuracy by 35%.
- **RegTech – Legal Document Analysis Platform:** Developed backend services for large-scale document ingestion, versioned clause extraction, and semantic comparison to support regulatory compliance workflows.
- Implemented scalable parsing pipelines, embedding-based comparison logic, and audit-friendly version tracking, reducing compliance false positives by 30% and enabling dashboard-driven review workflows.
- **Real-time Fraud Detection & Recommendation Services:** Built and deployed low-latency backend services for fraud detection and recommendation delivery in high-throughput banking environments.
- Optimized API performance, model inference orchestration, and feature computation pipelines, reducing end-to-end latency by 45% and improving recommendation precision by 40%.

### Software Engineering Intern

Jun 2023 – Aug 2023

Tata Steel Ltd.

Jamshedpur, India

- **Predictive Maintenance System – Torpedo Ladle Car Operations:** Designed a data-driven maintenance planning system to optimize repair scheduling for heavy industrial equipment.
- Built data ingestion and preprocessing pipelines from sensor readings, thermal scans, and maintenance logs.
- Implemented regression-based prediction services achieving **7.85%** error and improving maintenance planning accuracy.

## Technical Skills

**Languages:** Python, C++, SQL, JavaScript

**Backend & Systems:** REST APIs, FastAPI, Microservices, Distributed Systems, PostgreSQL, DynamoDB

**Cloud & Infrastructure:** AWS, Serverless Architectures, API Gateway, Event-driven Systems

**DevOps & Tools:** Docker, CI/CD, Git, GitHub Actions, Linux

## Relevant Coursework

- Data Structures & Algorithms
- Database Management Systems
- Operating Systems
- Machine Learning & Deep Learning
- Natural Language Processing
- Cloud Data Engineering
- Big Data Analytics
- Generative AI & LLM Systems