

# SANNIHITHA GUDIMALLA

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## SUMMARY

Backend Software Engineer with 2+ years of experience building scalable, low-latency APIs, high-throughput microservices, and distributed systems. Proven expertise in Java, Spring Boot, C++, cloud-native deployments, and CI/CD pipelines, with experience supporting production systems processing 50M+ daily transactions.

## TECHNICAL SKILLS

**Programming Languages:** Java, C++, Python, JavaScript

**Backend:** Spring Boot, Spring MVC, Node.js, REST APIs, GraphQL, Microservices

**Databases:** MySQL, MongoDB, Redis, DynamoDB

**Cloud & DevOps:** AWS (EC2, S3, Lambda), GCP, Docker, Kubernetes

**CI/CD & Testing:** Jenkins, GitHub Actions, AWS CodePipeline, JUnit, Postman

**Distributed Systems:** High-volume transaction processing, Caching, Scalability, Fault-tolerant design

## WORK EXPERIENCE

Software Engineer I (Backend) | NCR Voyix | Hyderabad, India

Jan 2022 – Dec 2023

- Developed and maintained **fault-tolerant, low-latency Java Spring Boot microservices** for NCR's Unified Loyalty & Promotions (ULP) platform, supporting **50M+ daily transactions** with high availability.
- Engineered core **Promotion Engine logic** in Java and C++, implementing offer evaluation, stacking rules, exclusions, and loyalty calculations, improving transaction processing performance by **20%**.
- Designed and implemented **REST APIs and GraphQL endpoints** to integrate ULP with POS systems and third-party loyalty providers, improving interoperability and data consistency.
- Containerized services using **Docker** and supported deployments to **Kubernetes** clusters across staging and production environments to improve scalability and deployment stability.
- Built and maintained **CI/CD pipelines** using Jenkins, GitHub Actions, and AWS CodePipeline, reducing release cycle time by **30%** through automated builds, testing, and deployments.
- Implemented **Elasticsearch-based search and analytics** to enable fast querying and reporting for promotions and transaction logs.
- Diagnosed and resolved **30+ high-severity production incidents**, adding monitoring, alerts, and automated tests (**JUnit, Postman**) to increase test coverage to **90%** and significantly reduce production defects.

## PROJECTS

**Recipe Genie – Full Stack AI-Powered Cooking Assistant** | FastAPI, Python, React, Firebase, GPT-4o

Live Demo: <https://recipe-genie-frontend.onrender.com>

- Built and deployed an AI-powered recipe assistant with FastAPI and React, supporting real-time GPT-based responses and user authentication, and optimized backend latency by 12 seconds.

**Search Engine – Information Retrieval System** | Python, Scrapy, TF-IDF, Cosine Similarity, Flask

- Built a full-stack Python search engine using Scrapy for web crawling, TF-IDF and Cosine Similarity for document ranking, and Flask for serving real-time query results.

## EDUCATION

Illinois Institute of Technology | Chicago, IL

Jan 2024 – Dec 2025

Master of Computer Science

VNR Vignana Jyothi Institute of Engineering and Technology | India

Jun 2019 – Jul 2022

Bachelor of Technology in Computer Science • GPA: 3.7/4.0

## CERTIFICATIONS

- Full Stack Development - Udemy
- Data Analysis with Python - Coursera