

# Sanjana Satheesh

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[GitHub](#) | [LinkedIn](#)

## Professional Summary

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**Software Engineer** with hands-on experience in **Python, Java, C++**, and backend API development.

Strong foundation in **data structures, algorithms, SDLC, and system design**, with practical experience building deployable services using **FastAPI, LangChain, Docker, and REST APIs**.

Passionate about developing **scalable AI pipelines and backend systems**, with ongoing learning projects in **RAG-based question answering and multilingual OCR + speech pipelines**.

## Work Experience

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Sept 2024 – Present

Fidelity Investments, Chennai

Data Engineering Apprentice

**PROJECT:** Centralized Power BI Dashboard for Database Operations

**DESCRIPTION:** Built a centralised dashboard in Power BI to monitor real-time database operations, including Jira intakes, server and database status, and DBA activities. It also provides visibility into POC, change, and incident tickets across business units.

**RESPONSIBILITIES:**

- Built centralized dashboard in **Power BI** for monitoring Jira intakes, server status, and DBA activities.
- Connected to **Snowflake** using SQL queries and automated **Azure Portal** data pulls with HTTP calls.
- Collaborated with DBA team to convert manual tracking into real-time dashboards.

**PROJECT:** UDeploy Pipeline Migration to Jenkins

**DESCRIPTION:** Migrated deployment pipelines from UDeploy to Jenkins during decommissioning, creating and running new Jenkins pipelines to ensure smooth transition and continuity.

**RESPONSIBILITIES:**

- Migrated pipelines to **Jenkins**, creating automation scripts in **Bash** and maintaining repo on **GitHub**.

Enhanced CI/CD reliability and created documentation for team onboarding.

**DESCRIPTION:** Worked as DBA with team responsible for managing and supporting databases across on-prem and cloud environments, ensuring performance, availability, and operational efficiency.

**RESPONSIBILITIES:**

- Managed access controls, database patching, and Azure rehydration tasks.

## Education

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**B.Tech in Electronics & Communication Engineering**

Aug 2019-Aug 2023

College of Engineering, Chengannur (APJ Abdul Kalam Technological University)

**Higher Secondary & High School**

Toc H Public School, Kochi, Kerala (CBSE)

## Projects

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**Merchant Payment Integration API | Java (Spring Boot), MySQL, Swagger**

- Designed REST APIs for transactions, refunds, and settlements.
- Documented endpoints with Swagger; structured layers using clean architecture principles.

**Customer Churn Prediction Model | Python, Pandas, NumPy, TensorFlow (basics)**

- Built classification model achieving 82% accuracy in predicting churn.
- Demonstrated data preprocessing, feature selection, and evaluation techniques.

**RAG-Based Question Answering System (Ongoing Learning Project)**

- Currently developing a contextual QA chatbot using LangChain + FAISS/Chroma.
- Exploring Retrieval-Augmented Generation (RAG) workflows and FastAPI integration for serving responses.
- Goal: Demonstrate understanding of LLM integration and vector search as part of IBM AI Engineering

learning path.

### **Multilingual OCR + Speech-to-Text Pipeline (Planned Learning Project)**

- Designing pipeline to process Telugu & English data using Tesseract + Whisper + Supabase.
- Will apply this as a capstone for IBM AI Engineering Professional Certificate.

### **Intracity Ride Booking Platform (Prototype) | Go, React, MongoDB, AWS**

- Developed role-based authentication and simulated geolocation/messaging workflows.

### **Concurrent Chat Room (C++, TCP/IP, Multithreading)**

- Developed a multi-client chat system with socket programming and concurrency handling.

### **Library Management System (C++ STL)**

- Utilized STL containers and algorithms to manage product data and implement efficient search/sort operations.

## **Technical Skills**

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Languages: C, C++, Java, SQL, Python

Cloud/Tools: AWS (EC2, S3 basics), GCP, Jenkins, Git/GitHub, Docker

Data/Analytics: Power BI, Looker

Core Competencies: Data Structures & Algorithms, OOPS, System Design, SDLC

## **Training & Certifications**

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- Vector Institute – Embedded Systems Training (2023 – 2024) : C, C++, ARM7, Protocols, Linux OS
- Solved 180+ coding problems on LeetCode + HackerRank (DSA, algorithms, complexity optimization).  
[\[HackerRank\]](#) [\[LeetCode\]](#)
- [OCI AI Foundations Associate, Oracle University](#)
- [Software Engineering Essentials by IBM](#)
- IBM AI Developer Professional Certificate (9 out of 10 courses completed, in progress)

## **Workshops**

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Flutter App Development Workshop – IEDC Centre, SJCT Palai