Frank Mathew Sajan

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EDUCATION

Vellore Institute of Technology   Amaravati, India
Bachelor of Technology in Computer Science, Specialization in AI/ML   *Sept. 2023 – Jul. 2027*

CGPA: 8.62 / 10.00
Coursework: **Data Structures & Algorithms**, OOP (Java/C++), DBMS (Normalization), OS (Concurrency)

TECHNICAL SKILLS

Data Science & ML: **Pandas, NumPy, Scikit-learn**, Deep Learning (Basic), Data Visualization (Matplotlib), RAG
Languages: **Python**, **SQL**, C++, Java, JavaScript (ES6+)
Core Concepts: Data Structures & Algorithms, **Database Normalization**, System Design, OOP
Frameworks: React.js, Django, FastAPI, TensorFlow/Keras (Exposure), REST APIs
Tools & Cloud: AWS (EC2, S3), Docker, Git/GitHub, VS Code, Supabase, Linux/Bash

EXPERIENCE

Founding Engineer & Product Lead   Aug 2025 – Present
House of Muziris (D2C Startup) | Live Link   *Kerala, India*

- Architected a data-centric full-stack MVP using **React, Django, and PostgreSQL**, ensuring rigorous data validation for FSSAI compliance and supply chain tracking.
- Designed a normalized **database schema** to model complex inventory states, preventing data inconsistency and enabling accurate stock forecasting.
- Implemented analytics logging within the high-availability waitlist system to capture **user engagement metrics** during marketing campaigns.

Software Engineering Intern   Jun 2025 – Jul 2025
TechtoGreen Drone & Robotics Pvt. Ltd. (IIEC Incubator) | Case Study   *Vijayawada, India*

- **Engineered the cloud inference pipeline** for a Deep Learning anomaly detection model on AWS EC2, implementing system observability via RESTful APIs.
- Analyzed flight path data to optimize autonomous drone control algorithms, resulting in a **30% increase in field coverage efficiency**.
- Engineered a fault-tolerant **data transmission pipeline** using LoRa, achieving >99% Packet Delivery Ratio (PDR) for critical telemetry datasets.

Deputy Captain - Technical Research   Sep 2023 – Present
IETE VIT-AP (Student Chapter)   *Amaravati, India*

- Mentoring 20+ student developers in technical research, fostering a culture of **data-driven experimentation** in Embedded Systems and IoT projects.
- Reviewing technical papers and IoT developments to drive innovation in student research initiatives.

PROJECTS

NASA Space Apps Challenge (Global Nominee) | *React, Satellite Data API, AI*   Oct 2024

- Selected as a **Global Nominee (Top 1% of 93,000+ participants)** for engineering an AI-driven tool utilizing **PACE satellite data**.
- Built a dynamic **Data Visualization dashboard** to simplify complex oceanographic datasets, making scientific data accessible to non-technical users.

Rural School Management System | *PostgreSQL, Supabase, Data Pipelines*   Aug 2025 – Nov 2025

- Digitized academic records for 200+ students, establishing a structured **data pipeline** that reduced manual entry time by 15 hours/week.
- Optimized **SQL queries** for reporting modules, cutting data retrieval latency by 35% on low-bandwidth networks.

CERTIFICATIONS & AWARDS

Cloud/AI: AWS Academy Graduate (Cloud Architecting), Oracle GenAI Certified Professional (2025)
Code: CS50P: Programming with Python (Harvard, 2024), Automation Anywhere Essentials (2025)
Leadership: McKinsey.org Forward Program (Problem Solving & Leadership, 2025)
Awards: Rajya Puraskar (State Award, Bharat Scouts & Guides) – Highest State Honor for Discipline.