

# Alston Daniel Mendonca

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## Education

### St. Joseph Engineering College

Bachelor of Engineering – Artificial Intelligence & Machine Learning

– CGPA: **9.58 / 10**

Mangaluru, India

2022 – 2026

### GEMS Our Own Indian School

Senior Secondary (Class XII) – CBSE

– Percentage: **94.4%**

Dubai, UAE

2013 – 2022

## Experience

### Backend Developer & Machine Learning Intern

Nov 2025 – May 2026

Aquera

Bengaluru, India

- Implemented new features and enhanced ML pipelines for Integration Analysis within HR systems, improving data-processing reliability across modules.
- Supervised pipeline improvements spanning data ingestion, feature extraction, and model inference stages.

### Resource Person – Database Application Development

IEEE SJEC Student Chapter

St. Joseph Engineering College

Mangaluru

- Led a 4-day technical workshop on database-driven desktop application development for second-year AIML and CSDS students.
- Delivered hands-on sessions demonstrating real-time database connectivity using Electron.js and SQLite, covering schema design, CRUD operations, and packaging.

## Projects

### DressGuard AI | Python, FastAPI, YOLOv8, React, Vite, CUDA, Redis

2025

- Built an AI-powered real-time clothing compliance detection system supporting webcam, video file, image upload, and IP camera inputs.
- Engineered a dual-mode webcam pipeline: lightweight positioning guidance followed by frame-skipped YOLOv8 inference triggered after 5 consecutive valid frames, reducing idle GPU usage.
- Designed a configurable compliance rule engine with automatic model discovery, bounding-box visualization, and confidence-score overlays via the Canvas API.

### ProperLCP – Restaurant POS System | Electron.js, React, Node.js, SQLite

2025

- Led a 2-person team to design, develop, and deploy a full-featured Point-of-Sale system from scratch in under three months.
- Currently in production use at Lassi Corner, SJEC, Mangalore – handling daily order management, billing, and inventory tracking.

### SHANTHI – Nurse Mindfulness Study App | React Native, TypeScript, Expo, Supabase

2025

- Developed a cross-platform mobile application for PhD research on nurse mental wellness, enabling survey questionnaires, emotional check-ins, and journaling.
- Integrated Supabase for authentication, real-time data sync, and secure storage of sensitive health-related responses.

### RazorX – Voice-to-Visualization | Python, JavaScript, Generative AI

2025

- Developed a voice-driven data visualization tool that converts spoken natural-language queries into interactive charts and graphs using generative AI.

### Library Management System | JavaScript, Node.js

2024

- Built a customized library management system for St. Mary's Catholic Church, Dubai, handling catalog search, member management, and lending workflows.

## Technical Skills

**Languages:** Python, JavaScript, TypeScript, SQL, C, C#, Java

**Frontend:** React.js, Next.js, React Native, HTML/CSS

**Backend:** Node.js, Express.js, FastAPI, Electron.js

**Databases:** PostgreSQL, MySQL, SQLite, Supabase, Redis

**AI / ML:** YOLOv8, PyTorch, TensorFlow, OpenCV, Scikit-learn, Pandas, Keras

**DevOps & Tools:** Docker, Git, Expo