

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 Aquera	Nov 2025 – May 2026 Bengaluru, India
Resource Person – Database Application Development St. Joseph Engineering College	IEEE SJEC Student Chapter Mangaluru

– 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.

– 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