

MELVIN ISSAC

FULL-STACK ENGINEER

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[Melvin Issac | Full-Stack](#) 

CAREER SUMMARY

Full Stack Engineer with experience building web and mobile applications using Python, Node.js, React, Flutter, and PostgreSQL. Developed REST APIs, authentication systems, multi-tenant platforms, workflow automation, and real-time backend services.

TECHNICAL SKILLS

Languages	Python, JavaScript, TypeScript, Dart, HTML, CSS
Backend Architecture	REST APIs, Node.js, Express.js, FastAPI, SSO/OAuth 2.0 + OIDC, JWT Authentication, RBAC, Multi-Tenant Systems, Workflow Orchestration, Queue Infrastructure.
Frontend & Mobile	React.js (React + Vite), TypeScript, Hooks & Context API, State Management (Zustand/Redux Toolkit), Flutter (BLoC Architecture), Repository Pattern, Enterprise Analytics Dashboards, Tailwind CSS, Responsive UI/UX Design
Data & Infrastructure	PostgreSQL, Prisma ORM, Redis (Orchestration & Caching), Relational Database Design, Database Normalization, Query Optimization
AI & Automation	Prompt Engineering, Confidence Scoring, Validation Pipelines, AI-Assisted Recovery Systems
Tools & DevOps	GitHub, CI/CD pipelines, Containerization, Docker, Postman, Playwright, VS Code, Ngrok, WebSockets, Audit Logging & Compliance Tracking

TECHNICAL EXPERIENCE

Software Engineer Independent Projects	2026 – Present
Architect and maintain scalable full-stack web and mobile applications utilizing Python, Node.js, React, and Flutter over optimized PostgreSQL database backends. Engineered robust RESTful APIs implementing strict request validation middleware, centralized asynchronous error handling, and secure token lifecycles (JWT issue/refresh/revoke). Designed secure multi-tenant SaaS environments and implemented granular frontend and backend Role-Based Access Control (RBAC) permission schemas. Deployed automated audit logging pipelines for corporate compliance tracking alongside background task schedulers and persistent queue processing infrastructures using Redis. Containerized multi-service application stacks with Docker to isolate environments and engineered automated CI/CD continuous integration pipelines via GitHub Actions. Established automated end-to-end testing coverage using Playwright scripts and integrated real-time duplex communication layers via WebSockets.	

PROJECTS

AMC Nexus — HealthCare Recruitment Intelligent Platform

- Built a healthcare recruitment platform with automated data extraction, AI-assisted validation, workflow automation, and reporting tools.
 - Developed 5+ backend services covering data extraction, validation, scheduling, reporting, and workflow automation.
 - Designed and refined semantic fallback logic alongside robust AI-assisted validation and system recovery pipelines.
 - Implemented advanced confidence scoring layers, automated scheduler retry infrastructures, and managed persistent queue architectures using Redis.
- ✓ **Tech Stack:** Node.js | JavaScript | Python | FastAPI | PostgreSQL | Prisma ORM | Redis | Playwright | React.js

Daycare Platform — Enterprise Multi-Tenant SaaS System

- Built a multi-tenant daycare management platform with real-time synchronization, billing, reporting, and compliance features.
 - Developed 2 Flutter mobile applications for Parent and Teacher portals using BLoC architecture and Repository Pattern.
 - Created a React.js administration dashboard integrated with a Node.js and Express.js backend.
 - Designed PostgreSQL database schemas using Prisma ORM and implemented offline-first data synchronization with SQLite.
 - Developed 10+ modules including attendance tracking, billing, messaging, calendar management, and audit logging.
- ✓ **Tech Stack:** Flutter | React.js | Node.js | JavaScript | Express.js | PostgreSQL | Prisma ORM | Tailwind CSS

Trading Structure Engine, Real-Time Market Structure Recognition Platform

- Built a market structure engine for detecting Swing Highs, Swing Lows, BOS, CHOCH, and Liquidity Sweep events.
 - Developed event-driven pipelines for candle processing, state management, sequence validation, and event persistence.
 - Created interactive charting tools for structure visualization, event inspection, and debugging.
 - Processed 4,280+ NIFTY 5-minute candles with automated reporting and event auditing.
 - Generated 900+ market structure events across BOS, CHOCH, and Liquidity Sweep classifications.
 - Implemented automated validation and reporting pipelines for event quality assurance.
- ✓ **Tech Stack:** Python | FastAPI | PostgreSQL | Redis | AsyncIO | Lightweight Charts | Git

EDUCATION

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| ✓ Masters in IT (Networking) | Charles Sturt University — Melbourne, Australia | 2019 – 2021 |
| ✓ B. Tech in Computer Science & Eng. | College of Engineering Chengannur — Kerala, India | 2008 – 2012 |