

Amitha Isuru

[Backend/Full-Stack Engineer](#) | Enterprise Systems | BSc Eng (Hons)
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PROFESSIONAL SUMMARY

Software Engineer with 1+ years of professional software engineering experience building and supporting production-grade backend and enterprise web applications (FastAPI, PostgreSQL, AWS/Azure), combined with a year of hands-on experience in retail banking operations. Experienced in enterprise application deployment, infrastructure migration, batch job scheduling, and third-party system integration for enterprise clients. Seeking to bring this combination of banking-floor operational understanding and backend implementation experience to enterprise BFSI software delivery.

CORE COMPETENCIES

Backend & APIs	FastAPI, RESTful APIs, PostgreSQL, MySQL, Database Design
Systems & Infrastructure	Unix/Linux, Batch/Job Scheduling (Crontab), AWS (EC2, Lightsail), Azure, Nginx, PM2/Uvicorn
Tools & Practices	Git, Jira, CI/CD Concepts
AI/ML Integration	OpenAI API, RAG Architecture, Vector Stores, LLM Agents, Chat Integration
Frontend & CMS	React, Next.js, Supabase Realtime, HTML/CSS, WordPress, Elementor

PROFESSIONAL EXPERIENCE

Software Engineer | *Quantum Tunnel Design (PVT) Ltd* Apr 2026 – Present

- Provided ongoing production support and maintenance for the Business Insight Platform (enterprise analytics system used by 10+ clients); led infrastructure migration from AWS to Azure and implemented CI/CD pipelines using GitHub Actions and Azure Static Web Apps to improve deployment reliability and release velocity.
- Delivered CRM system enhancements - lead capture, lead merging, and AI-powered follow-up automation including integration of a third-party SMS platform (Convirza) into the CRM's messaging workflow, using Node.js, Next.js, and Supabase.
- Enhanced a cloud-based job execution system by implementing dynamic SQS queues and tiered dedicated EC2 workers provisioning dedicated compute per paid user versus a shared queue for free-tier users to improve job routing, resource isolation, and execution reliability under load.

Associate Software Engineer | *Quantum Tunnel Design (PVT) Ltd* Sept 2025 – Mar 2026

- Architected, built, and deployed the Business Insight Platform, an enterprise analytics system supporting 3-year historical financial and sustainability report analysis for 10+ enterprise clients; designed the backend using FastAPI, PostgreSQL, and OpenAI-based retrieval for automated report analysis.
- Built and deployed Timesheets, an enterprise time-tracking application serving 200+ employees; designed REST APIs with FastAPI/PostgreSQL, implemented automated batch email scheduling (crontab) for weekly CXO reports, and deployed to production on AWS EC2 using Nginx and PM2/Uvicorn process management.
- Integrated a third-party SMS platform (Convirza) into the CRM system for lead capture and automated follow-up workflows, using Node.js and Next.js.
- Collaborated directly with clients on requirements gathering, UAT, and production deployment; managed the full SDLC including technical documentation.

Technical Engineering Intern | *Synopsys Lanka (Pvt) Ltd* Apr 2024 – Oct 2024

- Led regression cleanup for Unified Compiler R&D team: analyzed and resolved 10+ JIRA issues in VCS compiler verification; fixed SystemVerilog handling, clock synchronization, and signal initialization bugs.
- Integrated VCS support into VC-Static formal verification tool; strengthened verification workflows across hardware validation pipeline using Verdi, GDB, Perforce, and TCL.

- Processed high-volume daily cash transactions, deposits, withdrawals, and customer account servicing using People's Bank's in-house core banking system.
- Ensured accuracy and compliance in cash handling, transaction verification, and KYC/customer documentation in a full-time retail branch environment.
- Gained direct operational understanding of retail banking workflows and customer-facing transaction processing.

EDUCATION

B.Sc. Engineering (Hons) in Computer Engineering

Mar 2021 – Oct 2025

*University of Sri Jayewardenepura | Second Class Upper Division | GPA: 3.43/4.00 | Minor: Data Management***G.C.E. Advanced Level (Physical Science Stream)**

2019

Sri Palee College, Horana, Western, Sri Lanka | DR 27 (Kalutara) | Combined Maths (A), Physics (A), Chemistry (A)

PROJECTS

Seatify – Real-Time Occupancy Monitoring System | Computer vision project | [git repo](#)

Apr 2024 – June 2025

- Purpose: Real-time restaurant/cafe seat availability detection using computer vision. Developed intermediate representation with python OOP concepts for seat and layout handling in the backend.
- **Tech Stack:** YOLO v8 (object detection), OpenCV (image processing), dynamic layout analysis, MySQL (data pipeline);

Senti - Personal Money Management App | [Preview](#)

Apr 2026 – Present

- Manages cash on hand, bank account, and savings bucket with predefined categories and custom tag support, real-time cash position tracking and financial visibility.
- **Tech Stack:** FastAPI (backend), React (frontend), Supabase (PostgreSQL, auth), Railway (deployment).

Stride - Quotation & Invoice Manager | [Preview](#)

Apr 2026 – Present

- Simplicity-first quotation-to-invoice-to-PDF platform.
- **Tech Stack:** FastAPI (backend), React (frontend), Supabase (PostgreSQL, auth, email), Railway (deployment)

PUBLICATIONS

- [IEEE Publication](#): Real-Time Restaurant/Cafe Occupancy Monitoring System (31 March 2026, ICARC 2026)

ACHIEVEMENTS & RECOGNITION

- Leadership: Principal keyboard player; trained and coordinated orchestra for Viramayak Live in Concert 2023
- Chess: Zonal Championship 2015 U19 – First Runner-up; Team Championship – First Place