

SHAZAN SHAHEED

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PROFESSIONAL SUMMARY

Computer Science and Engineering undergraduate with a strong foundation in software engineering, machine learning, and data-driven problem solving. Interested in developing intelligent, scalable applications and applying technical skills to real-world problems. Seeking opportunities to contribute to software engineering and machine learning projects while gaining hands-on industry experience.

EDUCATION

B.Sc. Engineering (Hons), Computer Science & Engineering March 2024 – Present
University of Moratuwa, Sri Lanka
Specialization: Data Science and Engineering
CGPA: 3.34/4.00

G.C.E. Advanced Level – Physical Science Stream 2022
St. Michael's College, Batticaloa
Z-Score: 2.2636 (3A Distinctions)

PROJECTS

Trilingual Multimodal Financial Support Ticket Classification and Priority Prediction System  S5 - Project (Ongoing)
React, Node.js, PostgreSQL, Docker, Hugging Face Transformers

- A multilingual intent-classification pipeline for English, Sinhala, Tamil, Singlish, and Tanglish banking-support tickets.
- Integrated OCR derived evidence from receipts and screenshots with ticket text for multimodal prediction.

Order Management System (PWA)  Individual Project
React, Node.js, PostgreSQL, Prisma, Tailwind

- Designed and launched a full-stack, mobile responsive dashboard for end-to-end order and inventory lifecycle management.
- Implemented secure backend APIs with Node.js and Express, utilizing JWT for authentication and Prisma ORM for optimized PostgreSQL database operations.
- Automated code deployments (CI/CD) by integrating GitHub with Vercel and Railway, ensuring seamless production updates.

Semantic RAG Search Engine for Tamil Lyrics  | **Live Demo** Individual project (Ongoing)
React, FastAPI, PostgreSQL (pgvector), Google Gemini AI, Docker, Kubernetes

- Architected a full-stack, containerized web application using React and FastAPI, orchestrated via Docker and Kubernetes for scalable cloud deployment.
- Integrated the Google Gemini LLM API to build a Retrieval-Augmented Generation (RAG) system, utilizing vector embeddings to perform highly relevant song stanzas for hallucination free search results.

Smart Campus Digital Twin  S3 - Project
Python, Apache Kafka, InfluxDB, MLflow, Grafana, Three.js, IoT

- Built Python data pipelines to ingest and process real-time environmental, occupancy, and energy sensor streams through Kafka and InfluxDB.
- Built machine-learning anomaly detection models to identify unusual sensor readings and abnormal campus operational patterns.

MedSync — Medical Clinic Management System

S2 - Project

- Contributed to the frontend and backend development of a full-stack clinic management system for appointments, patient records, treatments, and billing.
- Built and integrated React interfaces with RESTful APIs developed using Node.js, TypeScript, and Express.js.

Explore Lanka — Gamified Tourism Web App

Group Project

- Developed a full-stack tourism platform with GPS-based visit verification, rewards, leaderboards, and user profiles.
- Built an AI-powered trip-planning assistant with Mapbox-based route suggestions, attractions, and location recommendations.
- Implemented JWT authentication, Supabase storage, and automated deployment using GitHub and Vercel.

RESEARCH PUBLICATIONS

Environmental Drivers of Respiratory Disease: A District-Level Analysis  – Co-author May 2026
*Rahim Iqbal, Asfi Ahamed, Izzath Nisfer, **Shazan Shaheed**, Muhammadu Ilham, Nathali Athukorala, Madara Mendis, Nisansa de Silva, Sandareka Wickramanayake*
arXiv preprint arXiv:2607.04416

TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, Java, C++
- **Frontend:** React.js, Tailwind CSS, HTML, CSS
- **Backend:** Node.js, Express.js, FastAPI, REST APIs
- **Database Systems:** PostgreSQL, MySQL, Supabase, MongoDB, TimescaleDB
- **DevOps & Cloud:** Docker, Kubernetes, AWS, Git, CI/CD
- **Data & ML:** Hugging Face, scikit-learn, pandas, NumPy, Kafka, Spark, MLflow

VOLUNTEER EXPERIENCE

- **iGT Member, AIESEC in Sri Lanka** June 2024 – December 2024
Coordinated international trainee placements and assisted participants with local onboarding and accommodation arrangements.
- **Logistics Committee – Careers Day 2026** January 2026
- **Organizing Committee Team – Hit the Grounds 2026** January 2026

CERTIFICATIONS

- **Microservices and CI/CD Pipeline Builder,**  *Amazon Web Services* March 2026
- **Cloud Foundations,**  *Amazon Web Services* March 2026

REFEREES

1. Dr. Adeesha Wijayasiri

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2. Prof. Dulani Meedeniya

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