

Ruzaini Ahmedh

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PROFILE

Final-year Computer Science & Engineering undergraduate at the University of Moratuwa (GPA: 3.94/4.0, Mahapola Merit Scholar) specializing in Data Science. Full-stack developer and ML practitioner with a track record of shipping production systems — from AI-powered attendance and flood prediction to live court-booking platforms. Trilingual (Tamil, Sinhala, English) with real-world leadership and professional experience.

EDUCATION

University of Moratuwa <i>BSc (Hons) in Computer Science & Engineering</i> — Specialization: Data Science & Engineering • GPA: 3.94 / 4.0 Mahapola Higher Education Merit Scholarship (University Grants Commission of Sri Lanka)	Sri Lanka Expected 2026
Badulla Central College <i>General Certificate of Education — Advanced Level, Physical Science Stream</i> • 3 A Passes Z-Score: 2.2384	Sri Lanka 2022

TECHNICAL SKILLS

Languages	Python, JavaScript / TypeScript, SQL, VHDL, HTML/CSS
ML / Data Science	Scikit-learn, TensorFlow, DeepFace, Pandas, NumPy, Feature Engineering, Model Evaluation
Frameworks & Libraries	FastAPI, Next.js, React, LangChain, Vite
Databases & Storage	PostgreSQL, Supabase (RLS), ChromaDB (vector store)
Tools & Platforms	Docker, Git, Groq LLM APIs, Basys 3 FPGA, PWA Standards

PROJECTS

Flood Prediction & Disaster Reporting System <i>Python, Scikit-learn, FastAPI, React/TypeScript, Vite</i> Team Project — Data Intelligence • Built and owned the ML model: trained a flood prediction model on historical hydrological and meteorological data, handling feature engineering, model selection, evaluation, and API integration • Developed the disaster reporting frontend — a real-time interactive map (React/TypeScript/Vite) displaying flood incidents, severity levels, rescue team assignments, and live weather overlays per GPS coordinate • Implemented priority-coded visual markers (critical / high / medium / low) with rescue team status badges and direct-dial contact links, enabling rapid emergency response coordination • Integrated OpenWeatherMap API to surface live temperature, humidity, and wind data at each disaster location for situational awareness
Plug-and-Play AI Customer Support Framework (RAG-Based) <i>Python, FastAPI, LangChain, ChromaDB, Groq</i> In Progress • Multi-tenant architecture: a single deployment ingests any client’s internal documents and serves accurate, context-grounded responses without retraining • Orchestrated end-to-end RAG pipeline — document ingestion, chunking, embedding generation, ChromaDB vector storage, and semantic retrieval — via LangChain; inference served through Groq LLM APIs for sub-second latency • Exposed clean FastAPI endpoints for document upload, embedding, semantic search, and chat, reducing human support overhead significantly
Automatic Face Recognition Attendance System <i>FastAPI, Next.js, DeepFace/FaceNet, Supabase, Docker</i> • End-to-end deep learning pipeline: real-time face detection and identification using DeepFace/FaceNet embeddings with cosine-similarity matching, served via FastAPI • Built a Progressive Web App (PWA) dashboard in Next.js for attendance management, student records, and trip tracking; secured facial embedding storage with Supabase row-level security policies

- Containerized all services with Docker for reproducible, portable deployment at scale

Indoor Sports Court Booking System | *Next.js, Supabase, PostgreSQL* | courtbooker.me

- **Production-deployed platform** with ACID-compliant, double-booking-proof reservations enforced via strict PostgreSQL Row-Level Security (RLS)
- Integrated SMS alerts for booking confirmations and cancellations; built a full admin dashboard for court and availability management
- Designed for instant self-service onboarding — any sports institution can register and go live within minutes

Disaster Management System | *Real-Time Platform, SMS Reporting, Database Optimization*

- **Centralized real-time platform** for reporting disasters, missing persons, animal rescues, and camp requests, with admin verification for camp registrations
- SMS-based reporting overcomes internet outages, allowing anyone to file an emergency report in their own language via text message
- Applied database optimization and caching to sustain fast information retrieval under high-load emergency conditions

4-Bit Nano Processor | *VHDL, Basys 3 FPGA*

- Designed and implemented a 4-bit processor on Basys 3, including instruction decoder, register bank, and ALU interconnects for basic arithmetic operations

WORK EXPERIENCE

FBC Asia (Client: Mobitel)

May 2023 – Feb 2024

Call Center Executive

Sri Lanka

- Delivered national-level inbound customer support — service inquiries, technical troubleshooting, account management — across night shifts, ensuring continuous service availability
- Communicated fluently in all three official languages (Tamil, Sinhala, English), serving a diverse customer base and improving first-call resolution rates
- Maintained high satisfaction scores through clear communication, prompt issue resolution, and strict adherence to escalation procedures

Baithuz Zakath – Badulla District

Aug 2020 – Jun 2022

Office Administrator

Sri Lanka

- Managed donation accounts and maintained accurate financial tracking of Zakath contributions for the district office
- Handled administrative correspondence, coordinated voucher scheduling, and organized distribution for eligible recipients with strict confidentiality

LEADERSHIP & VOLUNTEERING

Department Representative — Dept. of Computer Science & Engineering, UOM

2024 – 2026

23rd Batch Representative (Semesters 04, 05 & 06)

Elected

- Elected by peers to represent the batch in departmental affairs across three consecutive semesters

Partnership Development Co-Lead — Hit the Grounds 2025

2026

CSE Department Sporting Event

- Led in-kind partnership development and sponsorship coordination for the flagship departmental sporting event

Company Handling Coordinator — CSE Career Fair

2026

Company Coordination

- Managed company liaisons for Sysco Labs, Iron One, Synergen, and CodeGen at the Department of CSE Career Fair

Batch 23 Representative — MEFM

2025

Batch Representative, Semester 02

LANGUAGES

Tamil : Native **Sinhala** : Fluent **English** : Fluent