

Mohamed Ameer

✉ mohamedameero025@proton.me ☎ +65 8522 1323 📍 Singapore 🚩 Singaporean

🔗 github.com/aeomantic

PROJECTS

Self-Verifying Claim Review Pipeline [↗](#)

06/2026 – 06/2026

HackerRank Orchestrate 2026

- Placed #43 of 1,773 entrants (top 2.4%) [↗](#) in a 24-hour solo AI engineering hackathon.
- Built an AI-powered claims-verification system that checks whether submitted photos actually support the claimant's stated damage.
- Added a self-verification step that re-examines the model's own output and escalates uncertain cases to human review instead of guessing.

SafeWatch - AI Community Crime Intelligence Platform [↗](#)

04/2026 – 04/2026

StraightUp Hackathon 2026

- Designed a normalized 7-table PostgreSQL schema on Supabase to power a 4-stage AI pipeline (crawler → cleaner → classifier → decider), exposing the data to the frontend through a single unified read view.
- Implemented a Python data-access layer using unique-key upserts to prevent duplicate records, plus a row-locking job queue to stop two agents from processing the same record simultaneously.
- Integrated the backend with a React/TypeScript frontend via the Supabase client, using real-time subscriptions to push new incidents onto a live map without page refreshes.

ITC-SIMplify - Campus Study Spot Finder [↗](#)

10/2025 – 04/2026

SIM IT Club ITCamp 2026

- Contributed to a centralized Supabase data layer (TypeScript, 13+ relational tables) powering check-ins, the leaderboard, rewards system, AI chatbot, and real-time session tracking within a unified codebase.
- Contributed to a 100-level XP gamification and streak system, implementing Supabase RPC functions with configurable cooldown rules and consistent DbResult error handling across 6 independent feature modules.
- Helped deliver the project that won the Design Excellence Award at the SIM IT Club ITCamp 2026 Project Showcase.

SureBO - Multilingual AI Fact-Checker [↗](#)

03/2026 – 03/2026

HackoMania 2026

- Engineered the core AI fact-checking pipeline in LangChain — chaining prompt → LLM (Qwen 2.5-VL-72B) → parser — and added a RAG step that runs 3 parallel live web searches (Tavily) as model context.
- Structured the end-to-end orchestration into a single flow: retrieve evidence → call the model → validate output → return a structured verdict.
- Built real-time response streaming via a Server-Sent Events endpoint and client-side reader that updates messages live, with built-in error handling and retry logic.
- Enforced reliable LLM output using a Zod schema with graceful fallback, and designed multilingual prompts that return a consistent result object in the user's language (English, Malay, Mandarin, Tamil).
- Unified multiple input types into a single pipeline — voice (Whisper) and text extraction from YouTube, websites, PDFs, DOCX, and images — normalizing every format into text routed through the same logic.

EXPERIENCE

Subcommittee Member, General Dept

10/2025 – Present
Singapore

SIM Information Technology Club

- Engineering the Supabase and PostgreSQL backend for ITC-SIMplify, a student-facing campus platform currently in active development and deployment for SIM students

- Helped facilitating hands-on Git & GitHub workshops for student cohorts of up to 5 participants, accelerating their adoption of version control workflows

Project Manager Intern
FirstCom Solutions Pte Ltd

08/2022 – 01/2023
Singapore

- Delivered 2 e-commerce web projects on schedule by coordinating cross-functional tasks and resolving bottlenecks, cutting overall delivery timelines by 20%
- Managed end-to-end project tracking using Jira and Trello, maintaining stakeholder alignment across client and internal teams throughout the full delivery cycle

Web Designer Internship
FirstCom Solutions Pte Ltd

07/2022 – 08/2022
Singapore

Designed and shipped responsive client websites using HTML, CSS, and Wix; collaborated with the design team to implement UI/UX improvements across multiple live projects

EDUCATION

Bachelor of Computer Science (AI, Big Data & Cybersecurity)
University of Wollongong

05/2027
Singapore

Diploma in Financial Business Informatics
Temasek Polytechnic

05/2023
Singapore

TECHNICAL SKILLS

AI/ML

LLMs, Multi-Agent Systems (LangGraph), RAG
Pipelines, Prompt Engineering, OpenAI Whisper,
Helsinki-NLP, pgvector, Langfuse, NLP

Frameworks & Libraries

Next.js 15, React, FastAPI, LangChain, Streamlit,
Tailwind CSS

Cloud & DevOps

Microsoft Azure, Git, GitHub, Langfuse
Observability

Languages

Python, TypeScript, JavaScript, Java, SQL

Databases & Backend

PostgreSQL, Supabase, ClickHouse, REST APIs,
Supabase RPC, pgvector IVFFlat

CERTIFICATES

Generative AI: Prompt Engineering Basics

- IBM
- 2026-03

Cloud Computing

- Huawei ICT Academy
- 2025-11