

Adam Anwar

Selangor, Malaysia | mr.adam.anwar@gmail.com | +60 13 665 7525 | linkedin.com/in/adam-anwar-adm1sh | github.com/ADM1SH

Final-semester IT Diploma student at Multimedia University and sole developer at HYGR, a Malaysian e-commerce brand. Shipped five production Cloudflare applications for analytics, scheduling, booking, and inventory planning. Builds Python ETL pipelines, dashboards, forecasts, and ML tooling, and writes C, C++, and AArch64 assembly for systems work. Seeking data science, AI, or software engineering roles.

EDUCATION

Multimedia University (MMU), Cyberjaya, Malaysia 2024 - Nov 2026 (expected)
Diploma in Information Technology | CGPA 3.23/4.00

- Coursework: Database Systems, Data Structures and Algorithms, Mathematics, Internet and Web Publishing, Data Communications and Networking.
- Active member, Google Developer Group (GDG) MMU. Recipient, Most Resilient Award.

Idrissi International School Graduated June 2024
IGCSE | A Malay, A English, A Economics, B Computer Science*

EXPERIENCE

HYGR, Shah Alam, Selangor 27 Jul 2026 - Present
Software Engineering & AI Intern (Lead Developer, sole engineer)

- Shipped 5 production applications on Cloudflare Pages, Workers, D1, and R2 as the only developer for a personal care brand selling in Malaysia and Singapore. Landed 1,000+ commits across 7 repositories since 27 Jul 2026.
- Built a BI dashboard across Shopee MY/SG and TikTok Shop MY/SG. Python ETL pipelines load 557,608 orders over 25 months of history, and the dashboard adds campaign-window analysis for 13 sale events and 12-month OLS trend forecasts.
- Integrated the Gemini API server-side to generate executive briefings with anomaly detection and reorder alerts.
- Replaced a manual Google Sheets and Forms process with a scheduling engine for live-stream hosts across four channels. The engine allocates shifts by fair hours, fills peak windows first, and blocks cross-platform double-booking.
- Engineered a multi-tenant shift booking platform with atomic capacity claims to stop overbooking, a waitlist, and hardened auth: PBKDF2-SHA256 at 100,000 iterations, HttpOnly SameSite=Strict cookies, rate-limited sign-in, and a strict CSP.
- Built a material requirement planning tool that turns a bill of materials into demand, shortage cost in RM, and 30, 60, and 90 day forecasts, with a stock card ledger for every STOCK_IN and STOCK_OUT movement.
- Applied the HYGR 2026 brand system across all five apps: one colour palette, type scale, 4 px spacing grid, and shared button, input, and table specs.
- Documented architecture, calculation formulas, audits, and security reviews in the repositories (AUDIT.md, FORMULAS.md, SECURITY-AUDIT.md).

PROJECTS

- **LLM Inference Quantization Benchmark** (Python, PyTorch, Ollama): Benchmarked Qwen2.5-0.5B-Instruct on an Apple M4 Pro across FP16, Q8_0, and Q4_K_M. Q4_K_M raised throughput 31.75% and cut VRAM 44.12% for a 12.20% quality drop (LLM-as-judge).
- **silicon-swarm** (C, AArch64/NEON assembly): Built a bare-metal AArch64 game with no OS and no libc: MMU setup, GICv2 interrupts, virtio input, and a 1920x1080 isometric engine with NEON span fills. Worst frame costs about 3M cycles, at least 20x under the 60 Hz budget (PMCCNTR_ELO).
- **My Preloved (Final Year Project)** (Django 6, React Native, Expo, Stripe): Built a secondhand marketplace with a Django REST API (JWT auth) and an Expo client. Features include A to D condition grading, offer and counter-offer chat, and Stripe test-mode escrow payments across 33 commits.
- **fly-connectome-sim** (TypeScript, Vite): Simulated a Drosophila embodiment in the browser: 23 leaky integrate-and-fire neurons drive legs, wings, and proboscis. 177 tests in 12 files reach 100% statement, branch, function, and line coverage.

- **pdf-qa-rag-bot** (Python, FAISS, sentence-transformers): Built a RAG question answering tool for PDFs with local embeddings and a FAISS index. Answers return the retrieved passages with page citations.
- **E-Commerce Churn & LTV Dashboard** (Python, scikit-learn, Streamlit): Built RFM features, a churn classifier, and LTV projections with a Streamlit cohort dashboard on a simulated 2,000-customer, 2-year transaction log.
- **ai-chess-engine** (C++, AArch64 NEON, Python): UCI chess engine with bitboard move generation, alpha-beta search, and a hand-written NEON primitive. Passes the perft(4) = 197,281 correctness check.
- **nn-physics-engine** (Python, scikit-learn, C++): Trained an MLP on 12,000 synthetic collisions (test RMSE 0.175) and ran its forward pass in C++ inside a real-time simulation.
- **custom-malloc** (C11): Allocator with first-fit and segregated free-list tiers, boundary tags, immediate coalescing, and multi-threaded stress benchmarks.
- **malware-sandbox** (C, Capstone): Process sandbox with dyld interposition call tracing and opcode clustering, tested on four benign self-built samples.
- **console-emulator** (AArch64 assembly, C, SDL2): CHIP-8 emulator with the full fetch-decode-execute cycle in hand-written AArch64 assembly.
- **market-sentiment-stock-tracker** (Python, NLTK VADER): Scores financial headlines with VADER and correlates sentiment with stock price movement.
- **toxicity-sentiment-analyzer** (Python, scikit-learn): TF-IDF and logistic regression classifier that plots chat toxicity around match events.
- **hand-gesture-gamepad** (Python, MediaPipe, C): Four hand gestures drive real macOS keyboard events through a Unix socket and a C bridge.
- **mini-shell** (C): POSIX shell with fork, exec, pipes, and signal handling.
- **bootloader-snake** (x86 assembly): Playable Snake in a 512-byte boot sector.
- **procedural-universe-generator** (C++, Python): Seeded Perlin noise driven by real stellar distribution data.
- **github-issue-pr-summarizer-agent** (Python): Summarizes issues and PRs and suggests labels with Groq or Gemini.
- **Codebound** (C++17): Terminal action RPG engine with boss mechanics and a leaderboard.
- **More on github.com/ADM1SH**: 74 public repositories in C, C++, Python, and TypeScript.

CERTIFICATIONS

- Harvard CS50 Professional Suite (2024 - 2025): CS50x, CS50P, CS50AI, CS50W, CS50SQL, Game Development, Business, Data Science with Python.

AWARDS AND LEADERSHIP

- **National and international champion**, traditional archery. Recipient, Yunus Emre Turkish Archery Awards (2021 - 2024).
- **1st place**, Malaysian Technology Expo (MTE) 2021, technological innovation.
- **Team Captain**, Alkhadeem Youth Camp (Langkawi and Perlis). Led groups of 10+ peers. Best participant award.
- **Head of Assembly (Prefect)**, Coordinated school-wide events and student leadership.
- **Chairman**, Idrissi School Drama Club.

TECHNICAL SKILLS, LANGUAGES, AND INTERESTS

Languages: Python, SQL, C, C++, JavaScript, TypeScript, Kotlin, Bash, Lua, AArch64 and x86 assembly

Data and ML: scikit-learn, PyTorch, FAISS, sentence-transformers, NLTK (VADER), Streamlit, ETL pipelines, OLS forecasting, LLM quantization benchmarking, Gemini API

Backend and cloud: Cloudflare Pages, Workers, D1, R2, Django, REST APIs, JWT auth, Stripe (test mode), React Native (Expo), Chart.js

Tools: Git/GitHub, Linux (Arch, CachyOS), macOS, QEMU, Ollama, LM Studio, Wrangler, Vitest, Logisim Evolution

Design and media: Figma, Photoshop, Affinity Suite, Canva, Blender, video editing

Spoken languages: English (native), Malay (native), Arabic (conversational)

Interests: Traditional archery, low-level systems programming, computer hardware, audio.