

ARNOB RIZWAN AHMAD

Software Engineering Undergraduate • AI / ML • Full-Stack • Mobile

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PROFILE

Final-year Software Engineering student at Universiti Teknologi Malaysia shipping production software for clients in four countries — ML Engineer for a US news-intelligence platform, application developer for a Luxembourg logistics startup, founding backend engineer at an AI storage startup, and contributor to live production websites in the US. Strong across PyTorch, LLM agents and evaluation pipelines, React Native, Flutter, Next.js, and FastAPI, with hands-on AWS and Azure AI experience across 93 public repositories. Seeking junior/graduate roles in AI engineering and automation, including LLM-powered agents, ML/AI, full-stack, or mobile engineering.

EDUCATION

Universiti Teknologi Malaysia (UTM) — Johor Bahru

Expected July 2026

Bachelor of Software Engineering

PROFESSIONAL EXPERIENCE

Application Developer — Moien Delivery — Luxembourg (Remote)

Mar 2026 – Present

Hybrid logistics platform serving customers, restaurants, and drivers

- Building a cross-platform mobile app with React Native and a Nuxt.js backend, delivering features for three distinct user roles.
- Implementing real-time order tracking, driver dispatch, and delivery workflow automation over REST APIs and WebSocket event streams, integrating third-party APIs for order assignment and status updates.
- Collaborating async with international stakeholders on weekly release cycles, owning features from spec through QA to production deployment.

Machine Learning Engineer (Contract via Mercor) — AI News HUD — USA (Remote)

Oct 2025 – Mar 2026

US-based AI-powered news intelligence platform

- Built and evaluated production PyTorch models for real-time news classification, summarization, and personalized recommendations.
- Designed evaluation pipelines and ran iterative experiments to improve model accuracy and inference latency across live traffic.
- Worked async with US stakeholders to take ML components from prototype to deployed feature in the platform's core intelligence layer.

Founding Backend Engineer — Framic — Remote

Aug 2025 – Present

AI-powered storage application

- First backend hire — designing backend services from scratch and owning architecture decisions and core API design.
- Leading development of AI search, real-time file indexing, and scalable systems for gallery and drive functionality.
- Working directly with founders to ship features rapidly while keeping the system maintainable as the team scales.

Software Engineer (Freelance Contributor) — MOMS Mobile Oil Change — USA (Remote)

Apr 2026 – Present

Production Next.js website for a US mobile oil change & fleet maintenance business — live at momsoilchange.com

- Redesigned the site header and navigation — active-route highlighting, hover dropdowns, prominent phone CTA — and rebuilt three product pages.
- Led an SEO overhaul: dynamic sitemap, 301 redirects for legacy city URLs, and consolidation onto `/locations/[city]` dynamic routes.
- Ran a site-wide security, dependency, and code-quality audit and repaired production-build breakages.

Software Engineering Resident — Headstarter — Remote (US)

Sep 2024 – Mar 2025

- Completed a competitive 6-month engineering residency, shipping 14+ ML and full-stack projects in Python and TypeScript.
- Designed and trained 5 neural networks applying LLM chaining, hyperparameter tuning, and model fine-tuning techniques.
- Built LLM-powered agents and automation workflows on AWS Bedrock/OpenAI APIs and optimized a Docker-based CI/CD pipeline on GitHub Actions, significantly reducing image size and build times.

SELECTED PROJECTS

Autonomous ML Agent — LLM-Planned AutoML Pipeline ([GitHub](#))

- Built an AutoML system where an LLM planner proposes modeling strategies under a time budget, Optuna tunes XGBoost/LightGBM/scikit-learn models, ensembles are built, and SHAP explains the winner.
- Shipped with model cards, a FastAPI inference service, 5 pytest suites, and CI/CD publishing to Docker Hub.

Self-Improving Prompt Optimization API — LLM Evals Infrastructure ([GitHub](#))

- Built CI/CD for prompts: a semver-versioned prompt registry where each improvement cycle runs failure analysis, generates candidates, A/B-evaluates them with a blinded LLM judge, and auto-promotes winners per YAML rules.
- Multi-dimensional scoring across OpenAI and Anthropic providers with FastAPI, Postgres, and Redis.

Terminal Coding Agent — Sandboxed CLI Agent ([GitHub](#))

- Built a pip-installable CLI coding agent that plans edits via OpenAI/Anthropic, applies them through a diff manager, and executes inside E2B Firecracker microVMs.
- Added guardrails scanning for six secret types (AWS, GitHub, Slack keys) and 5 pytest suites.

CrisisCohort — Multi-Agent AI Climate Resilience Platform ([GitHub](#))

- Architected a climate-resilience platform for smallholder farmers with 10+ specialized AWS Bedrock agents (water optimization, climate migration, grant matching, disease diagnostics) across 15,000+ lines of Lambda.
- Designed an AWS architecture spanning Lambda, Bedrock, DynamoDB, CloudFront, API Gateway, and Cognito, plus an on-chain water-rights trading contract in Solidity.

School Care App — 40-School Deployment — Sylhet, Bangladesh

Client work

- Delivered a full-stack school management system adopted by 40 schools across Sylhet; in closed testing ahead of Google Play launch.
- Built a React admin dashboard and a React Native app for parents and teachers, with Cloud Functions fanning out role-targeted FCM push notifications by school, role, and class.

ShopLocalr — Local Commerce Mobile App — Malaysia

Client work

- Shipped a 33,000-line Flutter local-business discovery app with customer, business, and admin roles — QR deal redemption with checkout PINs, Gemini-backed recommendations, and offline-first Hive caching on a Firebase backend.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, Dart, C#, SQL

ML / AI: PyTorch, scikit-learn, XGBoost, LightGBM, Optuna, SHAP, AWS Bedrock, Gemini, multi-agent systems, LLM evaluation & judges, RAG (FAISS, pgvector), local LLMs (Ollama, Llama 3), prompt engineering, A/B testing

Automation: Zapier, n8n, Make

Frontend & Mobile: React, Next.js, React Native (Expo), Flutter (Riverpod), Tailwind CSS

Backend: FastAPI, Django + DRF, Node.js, Express, Nuxt.js, ASP.NET Core, Celery, REST APIs, WebSockets, Socket.IO

Cloud & DevOps: AWS (Lambda, Bedrock, DynamoDB, API Gateway, Cognito, CloudFront), GCP (Cloud Run), Firebase, Docker, Kubernetes, GitHub Actions, Redis

Databases: PostgreSQL, MySQL, SQL Server, DynamoDB, Firestore, Neo4j, pgvector

CERTIFICATIONS

- **AWS** — Amazon SageMaker, Large Language Models, Prompt Engineering (Mar 2025)
- **Microsoft Azure AI** — Azure OpenAI Service, Natural Language Processing, Document Intelligence (Jun 2024)

ACHIEVEMENTS

- Selected as a Headstarter Software Engineering Resident — competitive 6-month US-based engineering program; shipped 14+ ML and full-stack projects.
- Contributor to two live production websites in the US — momsoilchange.com and photonixresearch.com.
- Shipped software used by real users in 4 countries (US, Luxembourg, Bangladesh, Malaysia) across 93 public GitHub repositories.