# AbdulMuhmeen Leasu

leasu.muhmeen@gmail.com | linkedin.com/in/abdulmuhmeen-leasu | github.com/AMuh2020 | abdulmuhmeen.com

## Education

**Durham University** — Durham, UK
*Bachelor of Sciences in Computer Science* — *Oct 2024 – Jun 2027*
Modules: Computer Systems, Networks and Systems, Software Engineering

**Concord College** — UK
*A Levels: Mathematics, Physics, Further Maths, Chemistry* — *Sep 2022 – Jun 2024*

## Experience

**IT Systems & Infrastructure Intern** — Jul 2026 – Sep 2026
*Matrix Energy | Headscale, Tailscale, Networking, VPN, Linux* — *Lagos, Nigeria*

- Architected and tested an encrypted **zero-trust mesh network** connecting **80+** distributed retail stations and depots (**300+** IP cameras) to central HQ, leading the pilot deployment and automated rollout pipeline.
- Configured self-hosted **Headscale** control planes and **Tailscale** edge nodes as subnet routers and reverse proxies, enforcing granular network ACLs to isolate operational traffic and secure administrative planes.
- Engineered on-demand RTSP streaming pipelines via **MediaMTX**, slashing edge bandwidth consumption while maintaining verified **sub-second latency** for critical monitoring operations.
- Authored **zero-touch provisioning scripts** to configure, containerize, and register edge gateway hardware, laying the automated blueprint for fleet-wide rollouts.

**Software Engineering Intern** — Jun 2026 – Jul 2026
*CGI | React, Python, Azure* — *Newcastle, England*

- Engineered a financial tracking dashboard using **React** and **Python** with automated data validation, reducing budget tracking latency by over **10x**.
- Enforced strict application security and enterprise **OPSEC** frameworks, implementing input sanitization, secure API patterns, and threat mitigations to protect sensitive operational data.
- Engineered an automated pipeline on **Azure** to ingest Mapillary spatial data and fine-tune a lightweight YOLO model (**60%+** accuracy), powering transport accessibility metrics for a high-stakes, client-winning PoC.

**Software Engineering Intern** — May 2025 – Sep 2025
*Mercurie | Go, GCP, Gemini API, Vertex AI* — *Lagos, Nigeria (Remote)*

- Engineered a high-concurrency customer support backend in **Go**, integrating the **Gemini API** to stream real-time responses under strict latency thresholds.
- Prototyped autonomous multi-turn agent workflows on **Google Cloud Platform (GCP)** using **Vertex AI**, evaluating latency budgets and model reasoning efficiency.
- Assisted in technical documentation and requirement scoping for critical **gRPC microservices** written in **Go**.

**Co-Founder & Lead Software Engineer** — Jul 2024 – Present
*AMAL POS | Flutter, Firebase, SQL, Google Play, Apple App Store* — *Nigeria*

- Scaled an offline-first POS platform across iOS and Android, onboarding **70+ businesses** and processing over **₦16 million+** in tracked inventory and transactional volume with constant weekly growth.
- Implemented a **Transactional Outbox pattern** combining local SQLite event queues with asynchronous Firebase Functions, guaranteeing monotonic order sequencing and eventual consistency across offline network partitions.
- Architected resilient, event-driven pipelines utilizing **Firebase Functions** and webhooks to process critical payment settlements, in-app purchase confirmations, and user provisioning with zero event loss.

## Projects

**Pinpoint Naija** | *Python, Next.js, Supabase, PostgreSQL, Gemini* — Nov 2025 – Dec 2025

- Developed a hybrid search engine using Next.js and Supabase, integrating **semantic vector embeddings** with keyword-based retrieval to automate business discovery.
- Implemented **Reciprocal Rank Fusion (RRF)** to aggregate scores from PostgreSQL **tsquery** and **vector similarity**, optimizing ranking precision for natural language queries.
- Architected a low-level search backend utilizing **GIN indexes** and Boolean operators to ensure high-performance data retrieval across large relational datasets.

## Technical Skills

**AI & Agents**: Large Language Models, Prompt Engineering, Agentic Workflows, Vertex AI, Gemini API
**Languages**: Python, Go, TypeScript, JavaScript, SQL, Dart, C, Bash/Shell
**Cloud & Data**: PostgreSQL, Azure, Google Cloud Platform (GCP), Docker, Redis, gRPC, CI/CD