

HANIF OLAYIWOLA

Software Engineering Intern

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SUMMARY

Computer Science undergraduate and AI systems builder with a strong foundation in software engineering and deterministic system design. Experienced in developing full-stack web applications, relational database architectures, and automated LLM orchestration pipelines. Proven track record of moving systems from concept to production with strict testing discipline, automated validation, and clear process documentation.

EDUCATION

BSc. Computer Science

Feb 2025 - Present

African Leadership College of Higher Education (ALCHE) – Pamplemousses, Mauritius

- Relevant Coursework: Programming; Web Development; Data & Decisions; Computer Architecture; Data Structures and Algorithms; Mathematical Foundations of Computing; Programming; Entrepreneurial Leadership; Communicating for Impact.

SKILLS

Soft Skills: Cross-functional collaboration, stakeholder communication, problem-solving, adaptability, leadership, time management.

Languages: Python, TypeScript, JavaScript, Java, SQL (MySQL, PostgreSQL, SQLite).

Frameworks & Libraries: Next.js, React, Node.js, Express, JavaFX, Tailwind CSS.

Cloud & Databases: Supabase, Firebase, Google Cloud Platform (GCP), Vercel, Sanity CMS.

AI & Tools: DeepSeek API, Gemini API, Claude, ChatGPT, Perplexity, Copilot CLI, Opencode, [Z.ai](#), Grok Build; RAG Pipelines, Prompt Engineering, AI agents

Developer Workflows: Git, GitHub Actions, CI/CD, Jest, Vitest, JUnit 5, Integration Testing, OpenAPI/Swagger.

PROJECTS

Grabbit Express, Ltd. Mauritius – [Autonomous AI WhatsApp Dispatch Engine](#)

2026

Stack: Next.js, TypeScript, DeepSeek, WhatsApp API, Supabase, WasenderAPI

- Built a 24/7 WhatsApp AI dispatcher for rides, deliveries, and errands, credited with increasing operational efficiency by 80% at Grabbit Express.
- Designed a 0-token deterministic receipt parser using native Node.js zlib stream inflation and text-operator extraction, bypassing LLM inference costs and falling back to a multimodal vision model only for image-based payloads.

Blocknauts - [Custom Learning Management System \(LMS\)](#)

2026

Stack: React, TypeScript, Supabase Postgres, Sanity CMS, Vitest, Gemini

- Built a custom Learning Management System (LMS) to replace manual spreadsheet administration end-to-end using Gemini and Claude models on Antigravity and Zed, successfully deploying an 8-week bootcamp to 200+ registered users and 70+ active learners across 4 countries.
- Executed a zero-downtime production database migration of 81 student data records from Firebase to Supabase using an idempotent migration script equipped with custom data integrity verification tools.

[Multi-Model Infrastructure Routing & Governance Layer](#)

2026

Stack: Python, PowerShell

- Built an infrastructure routing and cost-governance layer over a terminal-based coding assistant (Grok Build), managing 4 isolated model configurations across 3 switchable environment profiles and 6 skill configurations.
- Developed an asynchronous Python tracking daemon to record over 3,000 model inferences across 198 discrete developer sessions, generating granular spend ledgers mapped to provider rate cards.

MediCare Clinic — Desktop Appointment & Billing System Stack: Java, JavaFX, SQLite, JDBC, JUnit 5 - Co-engineered a desktop clinic management system in a two-person team, implementing transactional ACID compliance across multi-table writes with automated rollback handling. - Authored 57 comprehensive unit tests using JUnit 5, utilizing dependency injection with java.time.Clock to construct deterministic, time-zone-independent test cases that validated overlapping doctor shifts.	2026
AniLearn AI Visual Study Companion Stack: React.js, JavaScript, Tailwind, Express 5, Gemini API - Built an AI visual study companion end-to-end with Gemini in Google Antigravity — it converts a lecture topic into a generated visual mental model, an academic breakdown, an annotated diagram and an interactive tutor. (React 19, Vite, Express, Gemini API) - Engineered a fault-tolerant model layer: a 6-model reasoning fallback cascade and a 4-model image cascade, strict JSON structured output for content generation, server-sent-event token streaming, and three-tier recovery for malformed model JSON so generation degrades gracefully instead of failing. - Designed four pedagogical chat modes; Socratic questioning, reverse-Feynman "teach the AI" (with a clarity score), adversarial oral exam, and analogy coaching: each with its own prompt directives.	2026
PROFESSIONAL WORK EXPERIENCE	
Research Team Member AI Working Group, ALCHE – Mauritius - Collaborated in the development of a Retrieval-Augmented Generation (RAG) pipeline, enhancing AI response accuracy through context-aware document retrieval. - Co-drafted university-level AI governance policy outlining ethical use, data privacy, and responsible deployment of generative AI. - Conducted in-depth research on AI models, including transformer-based LLMs, to evaluate their capabilities for institutional use.	Jun 2025 - Present
Student Life Team, African Leadership College of Higher Education – Mauritius Residential Operations and Experience Lead Intern - Lead a 9-person Operations and Experience team as a unified unit covering day-to-day residential experience for ~150+ on-campus students. - Serve as a first-responder for campus emergencies, managing incidents and coordination before senior escalation. - Organized 2 signature residential events and established a student feedback loop that informs institutional decisions.	Jan 2026 - Present
Residential Operations Intern - Collaborated with other interns to create, promote, and implement residential events and activities, fostering student involvement online and offline. - Provided education and sensitisation on emergency response protocols and served as an on-call first responder, connecting students to emergency services. - Managed the laundry sign-up and payment process for all campus laundry offerings.	Jun 2025 - Jan 2026
AWARDS AND ACHIEVEMENTS	
Fintech Innovation Challenge Winner Mauritius Africa Fintech Hub Awarded for Blockchain fintech innovation among competing teams and developed Trustflow, a blockchain POC for solving the trust gap between banks and SMEs	2026
Best Club of the Year – The Blockchain Society, ALCHE African Leadership College of Higher Education	2025

- Led the founding team recognised as the best student club of the year.

Community Giveback Champion

2026

African Leadership College of Higher Education

- Recognised for community contribution and service.