

Zakaria Mohamed Omar

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Full-stack Software Developer with experience building web applications using React, Node.js, Flask, Python, and JavaScript. Developed blockchain, AI-powered, and cloud-based applications while mentoring 200+ students in programming. Strong foundation in backend development, REST APIs, database design, and modern software engineering practices.

PROFESSIONAL EXPERIENCE

Member of Technical Staff, Walaal Centre & Diagnostics 08/2026 – Present

- Building a public website for the organization's sister clinic using React, HTML, Python, and JavaScript — currently in active development.
- Developing an internal operational tool to streamline diagnostics/centre workflows.
- Supporting a mix of software development and technical/IT systems across the organization.

Software Engineer & Knowledge Management Officer, Hindis 03/2026 – Present

- Designed, built, and deployed the Hindis Academy website end-to-end in Next.js — live at hindis.so
- Authored tender and grant proposals independently for major donors, including a Save the Children International (Somalia) consultancy bid for circular-economy training curricula (plastic recycling, solid-waste management, green packaging) and a research-study proposal on education financing co-submitted to SCI and Somalia's MOECHE.
- Built internal AI tooling: a RAG assistant over Hindis' internal documents and an AI agent that monitors and surfaces new tender opportunities, automating business-development research.
- Produced the organization's visual identity and communication assets — logos, social-media content, presentation decks, and explainer videos.
- Owned client communications, email outreach, and social-media strategy.

Web Developer and Trainer Assistant, Kidocode Sdn Bhd Jul 2024 – Jul 2025 | Kuala Lumpur, Malaysia

- Developed full-stack web applications using React, Node.js, and Flask, delivering scalable REST APIs and responsive interfaces across multiple projects.
- Increased course completion rates by **30%** for **200+ students** by mentoring web development and programming fundamentals.
- Reduced student drop-off by **25%** by designing and launching **5+ programming course modules**.
- Contributed to a projected **50% revenue growth over three years** by analyzing SaaS pricing strategies and market positioning.
- Accelerated deployment of educational tools and coding projects through cross-functional collaboration with instructors and developers.

EDUCATION

Bachelor's in Computer Science (Honors), Asia Pacific University 2022 – 2025 | Kuala Lumpur, Malaysia

Diploma in Business Information Technology, Strathmore University 2020 – 2022 | Nairobi, Kenya

LANGUAGES

English — Native

Somali — Native

Swahili — Fluent

Arabic — Basic

PROJECTS

Codebase-QA: Local RAG Chat for Any Codebase, Python · LangChain · Ollama · ChromaDB · Gradio · Docker

- Built a fully local AI assistant that answers natural-language questions about any GitHub or local repository, citing the exact files and line numbers behind each answer.
- Implemented AST-aware indexing and semantic retrieval over code structure (not just text), plus ReAct agents that reason across the codebase to resolve multi-step queries.

- Shipped with 131 passing tests, Docker support, and three setup paths (Ollama / HuggingFace / Docker); runs entirely on-device so no source ever leaves the machine.

Artists-Evolution-Data — Interactive Music Career Visualizer, TypeScript · React ·

- Built an interactive web app that maps an artist's "breakout era" by turning career/streaming data into explorable charts.
- Shipped a deployed, client-side rendered demo with fast load times and responsive layout.

Machine Learning and Blockchain Based Certification System,

ReactJS, NodeJS, Python, Solidity, Hardhat, MongoDB

- Designed and built a blockchain certificate-verification system using GoQuorum, with Solidity smart contracts for immutable, tamper-proof record storage.
- Added AI/ML document classification and anomaly detection to flag forged certificates before verification.
- Delivered real-time verification through a Web3.js front end, with multi-role dashboards for issuers and verifiers.

Pathfinder - Interactive Pathfinding Visualizer, React · Vite · TypeScript · Tailwind CSS

- Built an interactive visualizer that animates 9 search algorithms (A*, Dijkstra, BFS, DFS, Greedy, etc.) step-by-step to make algorithmic trade-offs tangible.
- Designed a responsive UI with live controls for speed, weighted nodes, and grid editing; deployed a public live demo.

Cloud Based Diabetes Management System, C#, Razor Pages, AWS Elastic Beanstalk, AWS Lambda

- Developed a cloud app for tracking and managing diabetes data, with Razor Pages powering dynamic patient interfaces.
- Deployed a scalable, serverless architecture on AWS Elastic Beanstalk and Lambda.
- Implemented secure data handling and efficient backend logic for patient-record management.

Face and Hand Detection System, Python

- Built a real-time ML system for face and hand detection aimed at interaction and security use cases.
- Combined deep-learning face detection with live hand tracking for authentication, gesture control, and human-computer interaction.

TECHNICAL SKILLS

Programming Languages — JavaScript, Python, TypeScript, Solidity, Java, C++, C#, SQL, Rust

Databases — MongoDB, PostgreSQL, MySQL, SQLite

Blockchain — Solidity, Hardhat, Web3.js, Truffle, Smart Contracts

AI and Machine Learning — TensorFlow, OpenCV, Pandas, NumPy, Computer Vision, LLM Utilization, Advanced Prompt Engineering

Tools and Platforms — Git, GitHub, Firebase, Figma, AWS, Docker, Linux, REST APIs

Business Analysis — Strong grounding in accounting principles, economic analysis, and SaaS business evaluation. Experienced in financial forecasting, budgeting, market trend assessment, and optimizing product and pricing strategies.

Teaching and Content Generation — Proven track record in delivering engaging, results-oriented instruction in programming and web development. Skilled in designing curriculum, creating interactive learning resources, and adapting technical content for varied audiences and skill levels.