

Abdul Rahman Nsamba

Software Developer & AWS Cloud Architect / DevOps

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PROFESSIONAL SUMMARY

AWS Certified Solutions Architect and Full-Stack Software Engineer with 4+ years of experience developing scalable web applications and cloud infrastructure. Proficient in technologies such as Python, JavaScript/Node.js, React, Docker, Linux, and AWS cloud services. Dedicated to building highly available applications, optimizing cloud workflows, and delivering impactful software solutions.

TECHNICAL SKILLS & COMPETENCIES

- **Cloud & Infrastructure:** AWS (EC2, VPC, S3, IAM, ECR, CloudWatch), Linux System Administration, Bash, Docker, Docker Compose, Nginx
- **Backend & Databases:** Python (Flask, Django), Node.js (Express), REST APIs, SQL (PostgreSQL, MySQL), NoSQL (MongoDB), C
- **Frontend & CI/CD:** JavaScript (ES6+), React.js, Redux, Tailwind CSS, HTML5/CSS3, Git, GitHub Actions, CI/CD Automation

PROFESSIONAL EXPERIENCE

Full Stack Software Developer (Remote) / *ABF Healthcare Inc. – North Carolina, USA* (Jan 2025 – Present)

- Automated paper-based healthcare forms into secure digital web applications, reducing client onboarding time by 40% and saving 15+ administrative hours weekly.
- Developed scalable e-commerce micro-features using Django, HTML, CSS and JS increasing online platform transaction conversions by 18%.
- Updated and maintained 99.9% uptime across company production website in WordPress.

Software Engineer Intern – Unhire Team Lead (Remote) / *EVU Ventures – New York, USA* (May 2025 – Jan 2026) – **8 Months.**

- Led an agile team of developers across different time zones and established standard GitHub branching workflows that reduced code merge conflicts by 35%.
- Architected core responsive UI components and backend REST API endpoints, accelerating feature release cycles by 25%.
- Implemented unit testing and automated GitHub Actions CI/CD workflows, cutting pre-deployment bug rates by 20%.

Freelance Software & Cloud Developer / *Self-Employed – Kampala, Uganda* (2023 – 2024) – **2 Years.**

- Designed and deployed custom web applications for commercial clients using Python (Flask/Django) and PostgreSQL/MongoDB, meeting 100% of project deadlines.

- Configured cloud web servers, domain DNS, and automated SSL/TLS security certificates on AWS and Digital Ocean, eliminating client downtime during traffic spikes.

IT Manager & Web Developer | *Almasoud Investments Ltd – Kampala, Uganda (2019 – 2023) – 4 Years.*

- Designed, launched, and maintained corporate web assets, driving a 45% increase in digital inbound customer inquiries.
- Managed local IT network infrastructure and automated daily data backup procedures across our workstations, ensuring zero data loss during system failures.

TECHNICAL PROJECTS

Hammad – Desktop school management application [Java, Swing, iReports]

Source: https://github.com/Abdul17rahman/Hammad_java

- Build a school management system that onboards students, teachers and staff. It records student's financial information, results and generates document reports using iReport.

GigUp – Online Freelance Job Marketplace [Node.js, Express, MongoDB, Docker, REST API, JWT]

Source: <https://github.com/Abdul17rahman/gigUp>

- Built a full-stack job platform supporting multi-role authentication. Implemented Docker containerization to enable one-command cloud deployment and automated database indexing.

Quoty – Inspirational Quote Management System [Python (Flask), PostgreSQL, HTML5, Bootstrap, AWS S3]

Source: https://github.com/Abdul17rahman/Quoty_App

- Engineered a quote-sharing platform with optimized relational SQL schemas and dynamic caching, reducing database response latency by 30% under simulated traffic loads.

Simple Shell – Custom command Interpreter [C].

Source: https://github.com/Abdul17rahman/simple_shell

- This is Linux CLI that mimics the bash shell CLI which runs in a terminal environment that prompts users for commands, reads, passes them with arguments, executes and returns the required output to the user.

Mofi – An interactive movie comparison app [React, Zustand, Tailwind CSS, TMDB API]

Source Code: <https://github.com/Abdul17rahman/mofi>

- A sleek and interactive movie comparison app built with **React.js**, allowing users to filter, search and compare two movies using data from the [TMDB \(The Movie Database\) API](#).

AirBnB CLI & Web Infrastructure Engine [Python, OOP, MySQL, REST API, Linux, Nginx]

Source Code: https://github.com/Abdul17Rahman/AirBnB_clone_v3

- Developed a complete backend console system Airbnb clone featuring custom object serialization, REST APIs and SQL Database layer operating in the terminal.

AWS LAB PROJECTS

Hands-on labs covering core AWS services for identity, storage, compute, networking, and automation.

Securing Cloud Access and S3 Storage Layer

- Creating and federating users, groups, and roles.
- Authenticating users, Managing Permissions, and securing identity using AWS Identity and Access Management (IAM).
- Moving Data to and from S3
- S3 Transfer acceleration
- Managing Lifecycle and S3 versioning.

Computing Layer and Databases

- Adding compute and storage with Amazon EC2 and Amazon EC2 Instance
- EC2 configuration and Instance Config with user data.
- Dynamic Hosting and Amazon Elastic File (EFS) configuration.
- Creating Amazon RDS Database, RDS Proxy Connection Management, RDS Automated Backups and Read Replicas.
- Creating Amazon Dynamo DB and Migrating data into Amazon Database

Networking Environments, Monitoring, Elasticity and High Availability.

- Creating VPCs, Peering Connections, Transit gateway, AWS Site-to-Site and AWS Direct Connect
- Monitoring resources with CloudWatch and Cloud Alarm.
- Scaling Compute and Database Resources.
- Creating highly available environments using load balancers, S3 and CloudFront.

Automating Cloud Architecture, Building Decoupled Architecture, Serverless and Microservices

- Leveraging Infrastructure as code through Cloud Formation and AWS Quick Start.
- Decoupling application using Amazon SQS, SNS and Amazon MQ.
- Creating AWS Lambda functions with S3
- Creating Containers and Orchestration using ECS and AWS Step Functions.

EDUCATION & PROFESSIONAL CERTIFICATIONS

- **Diploma in Software Engineering** – ISBAT University, Kampala (2023 – 2025)
- **AWS Certified Solutions Architect – Associate** – Amazon Web Services (ALX) (2025)
- **AWS Certified Cloud Practitioner** – Amazon Web Services (ALX) (2025)
- **Front-End Engineering Certificate** – ALX Africa (2025)
- **Backend Software Engineering Certificate** – ALX Africa (2024)