NOEL OTIENO OSIRO

Cloud Solutions Architect | Software Engineer | Fintech
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Profile

Cloud Solutions Architect and Software Engineer with hands-on experience in site reliability engineering, cloud infrastructure, automation, and secure platform deployment. Skilled in Python, Terraform, Kubernetes, and CI/CD pipelines with a strong foundation in system performance tuning and infrastructure monitoring. Proven success supporting high-availability platforms in FinTech and public sector environments.

Technical Skills

Languages & Frameworks
- Python (Proficient), JavaScript, TypeScript, FastAPI, Node.js, Express, REST APIs, GraphQL,NextJs

ML/AI Development
- Scikit-learn, TensorFlow (introductory), PyTorch (learning), Data Cleaning, Model Testing

DevOps & Cloud
- AWS, Terraform, Docker, Kubernetes, Linux, GitHub Actions, PostgreSQL, NGINX, VPN, Prometheus (learning), LangChain (learning), CI/CD pipelines, Python, Bash, FastAPIAI (learning)

Systems & Databases
- Linux/Unix Systems, PostgreSQL, MySQL, Prisma ORM

Security & Networking
- SSL, VPN, IPsec, OAuth2, JWT, TCP/IP, DNS

Soft Skills & Tools
- Agile methodologies, Technical Documentation, Remote Collaboration, Microsoft Power Automate (basic exposure)

Professional Experience

IT Lead (PostaPay - PSP & Fintech)
Q3M Wanda Solutions | Malindi, Kenya | Jan 2024 – Dec 2024

- Designed cloud-native architectures using AWS, Terraform, and Kubernetes for secure and scalable backend services, with potential application in AI model deployment pipelines.
- Explored AI integration use cases in FinTech through backend automation and secure API management, laying groundwork for future AI system deployments.
- Integrated secure payment gateways (USSD, SMS, APIs), cutting transaction errors by 45%.

- Spearheaded backend automation and secure API management for AI readiness, reducing manual data processing by **60%**.

Front-End Support for Digital Technologies Radar Development
SDG AI Lab (2023)

- Collaborated with the SDG AI Lab team on building a digital solution aligned with disaster risk reduction and AI for development objectives.
- Developed automated test scripts for AI-powered web platforms using Jest and Testing Library, ensuring reliability and performance.
- Participated in technical discussions and reviews involving AI/ML integration strategies, aligning with SDG-driven outcomes.

Network Administrator
ManyaNet Solutions | Malindi, Kilifi County, Kenya | Jan – July 2023
- Deployed P2P wireless and fiber backbone for ISP-grade connectivity and high-availability networks.
- Maintained mission-critical Linux-based services using Docker and Kubernetes to ensure network and service reliability.
- Deployed and monitored NGINX-based load balancing to manage ISP-level traffic and minimize service degradation.
- Applied performance tuning on routing and connectivity layers (OSPF, BGP) to support dynamic traffic resilience.
- Maintained Docker/Kubernetes environments and NGINX load balancers for service reliability.

Software Engineer (SEQIP Compliance & Security)
Ministry of Education, Kenya (MOE) | Kilifi County, Kenya | 2020 – 2022
- Oversaw on-premise server infrastructure, ensuring compliance with security and data protection standards.
- Built REST APIs and backend systems using Python (FastAPI, Django) on Linux servers.
- Integrated AWS services with Kubernetes and NGINX for scalable deployment.
- Built Python-based backend systems supporting secure educational data pipelines; explored use of basic NLP techniques for automated reporting and system insights.
- Integrated AWS and Kubernetes, a foundation that supports deployment of AI microservices and LLM workflows.

Electrical Engineering Intern (Cloud & Compliance Focus)
Technical Operations, Kenya Airways | Nairobi, Kenya | 2019
- Maintained radio comms and ensured airworthiness compliance; supported regulatory audits.

Education

B.Sc. Electrical & Electronic Engineering, University of Nairobi (2014 – 2020)

Relevant Coursework: Systems Engineering, Signals & Systems, Applied Mathematics

Cloud Solutions Architect, Azubi Africa (April 2022 - Aug 2022)

DevOps, cloud security, AWS (associate-level knowledge).

Software Engineering, ALX Africa (2022 – 2024)

Focus: Backend Development, Data Structures, System Design, AI Capstone Projects

Certifications

- Microsoft Certified: Azure AI Engineer Associate
- Certified AWS Cloud Solution Architect
- Certified AWS Cloud Practitioner
- Career Essentials in Cybersecurity - Microsoft and LinkedIn

Languages

- English - Fluent
- German - Beginner (A1)
- Kiswahili - (Native)