Joseph Adeleke

DevSecOps & MLOps Engineer | Database Administrator

PhD student in Computer Science | Accra, Ghana

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PhD student in Computer Science, DevSecOps & MLOps Engineer, and Database Administrator with 5+ years of enterprise experience architecting secure, scalable cloud infrastructure across telecom, fintech and AI platforms.

Professional experience

DevSecOps & MLOps Engineer

Adaptive Computer Solutions | Apr 2025 - Present

Accra, Ghana | 150+ CI/CD Pipelines, 10 K8s clusters, GPU-enabled MLOps on AKS.

Additional current role: Database Administrator at Adaptive Computer Solutions.

Application Support Engineer

Nalo Solutions | Oct 2021 - Mar 2025

Accra, Ghana | Enterprise SMS infrastructure processing 1M+ messages daily.

Maintenance Engineer

Huawei Technologies (GH) S.A Ltd | Sep 2020 - Aug 2021

Accra, Ghana | Telecom and mobile money infrastructure support.

Systems practice

Oracle DBA expertise

Handled lifecycle management: installs, upgrades, patching, cloning, and cross-version migrations. Implemented RMAN backup strategies, Data Guard, and performance tuning across OLTP and warehouse workloads.

Linux systems operations

Engineered hardened baselines, configuration management, and golden images for fleet consistency. Delivered automation in Bash and Python for provisioning, patching, and fleet drift detection.

Core tooling

Kubernetes (KCNA) | Terraform & Ansible | Trivy & SonarQube | Zero-Trust Security | Azure (AZ-104) | AWS & Oracle Cloud (OCI) | Docker & Helm | MLflow & Kubeflow | Ollama & HuggingFace | GitHub Actions & Jenkins | Oracle DB Enterprise | Kafka | OpenTelemetry & SigNoz | Python & Bash

Research & foundations

Cloud Computing and Distributed Systems

Uncertainty-Aware Workflow Scheduling, Statistical Risk Control, and Cloud Resource Optimisation

Research interests and direction

My research interests connect cloud computing, distributed systems, statistical learning, and optimisation. I am interested in reliable, cost-efficient workflow scheduling under uncertain execution conditions, combining mathematical modelling, statistical methods, and experimental systems evaluation.

- Scientific workflow and DAG-based task scheduling; deadlines and cost efficiency.
- Uncertainty quantification, runtime uncertainty, model misspecification, and performance modelling.
- Distribution-free statistical risk control and conformal prediction.
- Resource allocation, admission control, queueing, and service reliability.
- Reliable cloud systems and applied ML for resource management.

Education

PhD in Computer Science

In progress

Currently pursuing a PhD in Computer Science. Research interests in cloud computing, distributed systems, and uncertainty-aware workflow scheduling.

MSc Computer Science

University of Ghana, Legon | 2025

Specialization: Machine Learning & Data Visualization.

BSc Computer Engineering

Ghana Communication Technology University (GCTU) | Sep 2016 - Aug 2020

Selected projects

OpenMed MLOps

An educational MLOps demonstration that trains a classifier on synthetic patient data with Kubeflow Pipelines and records experiments in MLflow on Kubernetes.

github.com/jadeleke/openmed-mlops

Infrastructure as code

Infrastructure-as-code demo deploying an Nginx app with Terraform and Docker.

github.com/jadeleke/terraform-docker-nginx-app