

Kere Ekpenyong

Senior DevOps & Platform Engineer | Agentic AI & Cloud Infrastructure

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PROFESSIONAL SUMMARY

Senior Platform and DevOps Engineer with 14+ years of experience and 2+ years building production agentic AI systems. Hands-on across the full stack — designing Kubernetes infrastructure on OpenShift, GKE, EKS, and AKS; automating multi-cloud environments with Terraform and Ansible; and shipping LangGraph supervisor-worker agents on AWS Bedrock and Vertex AI RAG pipelines with RAGAS-evaluated accuracy. Delivered enterprise-grade engagements at Bell Canada and BMO through IBM Consulting — spanning OpenShift CaaS migrations, GKE cluster rollouts, immutable AMI automation with EC2 Image Builder and CIS Level 2 hardening, and CI/CD platform modernization. Built and published production AI products including a multi-agent African business directory (546+ stores, live iOS app) and an Igbo-English RAG translator serving a language preservation mission. HashiCorp Terraform Associate and Google Associate Cloud Engineer certified.

TECHNICAL SKILLS

Container Platforms	OpenShift Container Platform (OCP), Kubernetes, Docker, Podman, Helm, Istio
Cloud & IaC	AWS (EC2, ECS, EKS, Lambda, S3, Step Functions, CDK, CloudFormation), GCP (GKE, Cloud Composer, Cloud SQL), Azure (AKS), Terraform, Ansible
CI/CD & DevOps	GitLab CI, GitHub Actions, Jenkins, Azure DevOps, CircleCI, ArgoCD, SonarQube, DORA metrics
AI/ML & Tooling	LangGraph (StateGraph, ToolNode, MongoDB checkpointing), LangChain, AWS Bedrock (Claude Haiku 4.5), Vertex AI RAG Engine (text-embedding-005, Gemini 2.0 Flash), Anthropic API, Claude Code, FAISS, RAGAS evaluation, FastAPI AI serving, AWS SageMaker MLOps
Security & Quality	Checkmarx (SAST), Mend (SCA), CodeQL, OWASP Dependency Check, Trivy, SonarCloud, container image scanning
Observability	Prometheus, Grafana, Datadog, CloudWatch, ELK Stack, Alertmanager, Sentry
Databases	PostgreSQL, MongoDB, Redis, DynamoDB, Elasticsearch, RabbitMQ
Languages	Python, Bash, TypeScript, Java 8/17, SQL, Next.js

PROFESSIONAL EXPERIENCE

Senior Platform & DevOps Engineer | IBM Canada

June 2023 – Present

- Built and maintained Jenkins CI/CD pipelines for automated testing and deployment of containerized applications, integrating SonarQube for code quality gate enforcement and improving deployment reliability across microservice teams
- Created Terraform and Jenkins-based self-service test environment provisioning for developers, dramatically reducing environment spin-up time and eliminating manual operations toil
- Designed and deployed scalable Kubernetes infrastructure with Redis caching layer, reducing API response latency through architecture optimization and container orchestration improvements
- Developed Ansible automation scripts for repeatable deployment processes, streamlining operations and significantly reducing manual deployment time

Key Client Assignments:

DevOps / Platform Engineer — Bell Canada — CaaS OpenShift Migration PoC (NDEX & SmartID) May 2026 – June 2026

- Designed and validated a static Persistent Volume storage strategy for the CaaS cluster using `kubernetes.io/no-provisioner StorageClass`; produced NFS Validation Runbook and Storage Strategy Decision document adopted by the team
- Set up GitLab CI/CD pipelines targeting OCP, adapting pipeline patterns to OpenShift-specific deployment requirements; documented end-to-end setup in a reusable GitLab CI OCP Setup Guide
- Successfully deployed NDEX microservices to the `ndex-poc` namespace using Kubernetes manifests and Helm charts, validating the PoC deployment model for the NDEX and SmartID programs

- Diagnosed and coordinated resolution of cluster-level blockers including broken DNS resolution and MongoDB firewall rule gaps, working with Bell network and DBA teams to restore microservice-to-database connectivity
- Diagnosed and resolved an Istio operator reconciliation issue that was silently stripping custom Service ports from deployed microservices; traced root cause and coordinated a targeted fix restoring correct port bindings without cluster downtime

Lead DevOps Engineer — Bell Canada — On-Premises Kubernetes Cluster Expansion *Jan 2025 – Apr 2025*

- Led extension of existing bare metal Kubernetes cluster by provisioning OpenStack VMs with strict workload isolation via node affinity, taints, and tolerations — establishing a repeatable, automated scaling process
- Implemented SAST and SCA security scanning in GitLab CI/CD pipelines using Checkmarx and Mend, enforcing vulnerability detection as mandatory quality gates before production deployment
- Established network policies and firewall rules to maintain compliant inter-workload communication and reinforce internal security posture

DevOps Engineer — Bell Canada — Legacy Application Migration to GKE *Jul 2024 – Dec 2024*

- Designed and configured GKE clusters using Terraform IaC, enabling consistent automated environment setup for containerized microservices migrated from on-premises legacy systems
- Designed and operated production ETL pipelines on Cloud Composer (Apache Airflow), implementing Git-based DAG version control with automated CI/CD deployment to GCS buckets
- Reduced deployment time from hours to minutes through CI/CD automation and standardized Helm chart configurations

Cloud Engineer — Bank of Montreal — AWS Immutable AMI Automation *Jun 2023 – Oct 2023*

- Architected modular six-phase EC2 configuration system triggered by ASG lifecycle events, orchestrated via EventBridge and Step Functions using AWS CDK (TypeScript) — integrating EC2 Image Builder with CIS Level 2 hardening and Inspector v2 vulnerability scanning to deliver a bank-wide shared immutable AMI service across a multi-account AWS Organizations environment
- Designed and implemented three-Lambda event-driven ASG circuit breaker preventing runaway scaling, featuring DynamoDB atomic counters, automatic suspension, and self-healing recovery — adopted across production ASGs
- Delivered comprehensive implementation plan, reference workflows, and runbooks; integrated Bandit SAST into the pipeline CI gates — enabling secure in-house team adoption and reducing deployment risk across production environments

Senior DevOps Engineer | Sentaca, an IBM Company *March 2022 – June 2023*

- Delivered expert CI/CD consultation for enterprise clients, owning end-to-end assessment and modernization of build-release pipelines — reducing CI runtime and accelerating software delivery
- Redesigned and streamlined CI/CD workflows tailored to client operational context, introducing scalable processes that improved pipeline performance and developer velocity
- Authored CI/CD efficiency guides and implementation roadmaps including strategic recommendations for running Jenkins on Kubernetes at scale

Head, Technology Services & DevOps | Socketworks Limited, Nigeria *August 2011 – November 2021*

- Led technology services and infrastructure engineering as Head of Technology — owning technical direction, platform strategy, and team development across a 10-year tenure spanning 40+ institutional client deployments
- Engineered automated deployment framework across AWS EKS and GCP using Terraform, Docker, and Kubernetes, integrated with Jenkins, CircleCI, GitLab CI, and GitHub Actions for multi-cloud CI/CD
- Developed and maintained CI/CD pipelines using Python/Bash, achieving a 70% reduction in manual workload and significantly reducing human error in deployment stages
- Instituted immutable server architecture with Terraform to eliminate configuration drift, improving security posture and infrastructure reliability
- Mentored and developed engineers through technical coaching, code reviews, and pair debugging — building team capability and instilling a culture of operational ownership

PERSONAL PROJECTS

African Stores Canada — AI Agent Directory | *Python, LangGraph, AWS Bedrock, MongoDB Atlas, Next.js, SwiftUI*

github.com/kere-sifon/african-stores-agent | africanstorescanada.ca | [App Store](#)

- Designed and shipped a production LangGraph supervisor-worker agent on AWS Bedrock (Claude Haiku 4.5) — StateGraph with typed AgentState, ToolNode for native tool calling, conditional edge routing, and MongoDB Atlas checkpointing for crash-resumable multi-step reasoning; autonomously catalogues 546+ African businesses across 34 cities in all 10 Canadian provinces at under \$0.50 per full national crawl
- Implemented OIDC-authenticated GitHub Actions CI/CD with weekly province-rotation crawl schedule, automated email reporting, CodeQL + Gitleaks security scanning; production Next.js web app with a password-gated /ops dashboard (Status, Eval scores, Cost, Review queue); companion iOS app published to the App Store (Swift, SwiftUI)

Igbo-English RAG Translator | *Python, Vertex AI RAG Engine, Gemini 2.0 Flash, text-embedding-005, Terraform, RAGAS, FastAPI*

github.com/kere-sifon/igbo-rag

- Rebuilt Igbo-English RAG translator on Vertex AI RAG Engine — migrated from local FAISS/Ollama stack to GCP-native managed retrieval using text-embedding-005 and Gemini 2.0 Flash; provisioned all GCP infrastructure via Terraform with OIDC authentication; ingested 1M curated Igbo-English pairs from 19.5M raw NLLB dataset achieving RAGAS answer relevancy of 0.833
- Prior iteration achieved ~86ms FAISS retrieval with quality-aware prompt routing and a human-in-the-loop correction store (JSONL-backed, live hot-reload); project driven by language preservation mission for Igbo-speaking diaspora communities

AI Log Monitoring System | *Spring Boot, Angular, Kubernetes, SageMaker, Terraform, GitHub Actions*

github.com/orgs/kere-sifon/repositories?q=topic:ai-log-monitoring

- Architected end-to-end AWS MLOps pipeline using SageMaker Pipelines (preprocess → train → evaluate → register), deploying an Isolation Forest anomaly detection model with automated promotion gating on F1 score threshold
- Built Terraform-managed AWS infrastructure with HCP Terraform remote state and GitHub OIDC authentication; implemented multi-stage CI/CD with Bandit, CodeQL, OWASP Dependency Check, SonarCloud, and Trivy enforcing security gates before every deployment

RetailFlow — E-Commerce Analytics Pipeline | *Python, Databricks, Delta Lake, FastAPI, GitHub Actions*

github.com/keresifon/databricks

- Built production-grade Medallion Architecture pipeline on Databricks using Delta Lake with schema-enforced ingestion, idempotent MERGE upserts, and RFM customer segmentation via PySpark window functions
- Exposed Gold metrics through FastAPI REST layer; automated deployment via GitHub Actions CI/CD with lint/pytest on every PR and Databricks Jobs API pipeline trigger on merge

No Wahala Receipt — iOS App | *Swift, SwiftUI, MVVM, Google Gemini AI, Firebase*

apps.apple.com/us/app/no-wahala-receipt/id6752734272

- Published production iOS app integrating Google Gemini AI for OCR-based receipt scanning and automatic expense data extraction; implemented secure authentication with 2FA, email verification, and role-based access control supporting multi-tenant family accounts

EDUCATION

Master of Science, Information Systems Management | *University of Liverpool, UK*

Bachelor of Engineering, Electronic Engineering | *University of Nigeria, Nsukka*

CERTIFICATIONS

- IBM Generative & Agentic AI Developer (2026)
- HashiCorp Certified: Terraform Associate (003) (2024)
- Google Associate Cloud Engineer (2024)