FRANKLIN ODJUWU OKPAKO

SENIOR DEVOPS / PLATFORM ENGINEER | KUBERNETES | INFRASTRUCTURE

Remote (US/EU hours) | Open to relocation
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PROFILE

Senior DevOps / Platform Engineer with 10+ years in technology and 7+ years architecting, building, and operating cloud infrastructure and Kubernetes-based developer platforms. Combines hands-on infrastructure software engineering with end-to-end ownership of scalable, secure, and highly available production systems. At Exodus, designed and delivered a self-service GitOps platform adopted by 10+ engineering teams across 35+ services, while owning infrastructure across five AWS EKS clusters (two production) supporting services used by millions. Built a TypeScript Kubernetes operator for stateful workload reconciliation and persistent-volume-aware recovery. Strong expertise in Kubernetes networking, workload isolation, autoscaling, cloud security, Terraform-based AWS/GCP infrastructure, CI/CD, and reliability engineering, with a focus on simplifying infrastructure complexity and enabling developers to ship safely at scale.

CERTIFICATIONS

- Certified Kubernetes Administrator (CKA)
- Certified Kubernetes Security Specialist (CKS)
- AWS Certified Security – Specialty
- AWS Certified DevOps Engineer – Professional
- AWS Certified SysOps Administrator Associate
- Microsoft Certified Azure Administrator Associate

SKILLS

- **Cloud Infrastructure & Kubernetes:** AWS (EKS, VPC, EC2, RDS, IAM, Lambda, API Gateway, ALB/NLB), GCP, Azure, DigitalOcean, Kubernetes, Helm, Cilium, Karpenter, Docker, Linux
- **Stateful & Distributed Systems:** Kafka/MSK, PostgreSQL, Redis, blockchain full/archive/RPC nodes, distributed indexing, RPC/WebSockets, persistent volumes, failure-domain-aware recovery
- **Infrastructure as Code & Delivery:** Terraform, Terragrunt, OpenTofu, Atlantis, CloudFormation, Ansible, ArgoCD, ApplicationSets/AppProjects, GitHub Actions, GitLab CI, Argo Rollouts
- **Reliability, Observability & Cost:** Prometheus, Grafana, Observe, Loki, CloudWatch, SLI/SLOs, synthetic monitoring, on-call, RCA/postmortems, high availability, disaster recovery, capacity/scaling, cost optimization
- **Security & Networking:** VPC networking, DNS, TLS, ingress, ALB/NLB, IAM/IRSA, OIDC, KMS, Secrets Manager, RBAC, NetworkPolicy, Cloudflare WAF/Zero Trust
- **Infrastructure Software & AI:** Python, Bash, Go, TypeScript/Node.js, Kubernetes operators, NVIDIA GPU environments, vLLM, LiteLLM, private AI deployment, MCP tooling

PROFESSIONAL EXPERIENCE

Senior Platform Engineer | BlockOps Network - Remote (Part-time) Jan 2023 – Present

- **Platform Architecture & Technical Leadership:** Lead client-facing infrastructure initiatives from requirements and architecture through implementation, defining cloud/Kubernetes environments, security boundaries, observability, recovery strategies, and operational standards.
- **Multi-Cloud Infrastructure & Automation:** Design and operate AWS/GCP infrastructure for blockchain full/archive/RPC nodes using reusable Terraform automation, covering provisioning, networking, storage, endpoint availability, monitoring, upgrades, and recovery.
- **Private AI Infrastructure & Deployment Assurance:** Built an evaluation-stage assurance system for private AI deployments on Linux/Docker and NVIDIA GPU hosts. Tested pinned vLLM deployments on an NVIDIA L4, incorporating signed deployment evidence, drift checks, rollback, and recovery validation.

Senior DevOps Engineer | Exodus Movement - Remote (US) Feb 2022 – Aug 2026

- **Infrastructure Software & Kubernetes Controllers:** Designed and built a TypeScript/Node.js Kubernetes operator for stateful workloads, automating reconciliation, persistent-volume-aware recovery, and failure-domain placement. Also developed a custom Argo CD CLI and MCP integration for controlled human and AI-assisted infrastructure operations.
- **Platform Engineering & Developer Experience:** Led an organization-wide developer-platform initiative from architectural evaluation through delivery and adoption. Built self-service workflows for builds, feature environments, deployments, promotion, and rollback, enabling 10+ engineering teams to ship and operate 35+ services without managing the underlying Kubernetes and GitOps complexity.
- **Production Kubernetes & Cloud Infrastructure:** Owned infrastructure across five AWS EKS clusters (two production), supporting multi-chain wallet services used by millions. Managed cluster upgrades, Cilium networking, Karpenter autoscaling, persistent storage, workload identity, and high-availability operations.
- **Cloud Architecture & Identity Security:** Designed repeatable multi-account AWS environments using Terraform/Terragrunt, OpenTofu, and Atlantis, covering networking, compute, databases, secrets, and access controls. Migrated workloads from kube2iam to service-specific IAM/IRSA identities to strengthen least-privilege access.

- **CI/CD, GitOps & Release Engineering:** Built reusable GitHub Actions workflows, GitLab runner infrastructure, and Argo CD delivery pipelines with least-privilege GitHub App identities, environment controls, and progressive delivery. Engineered GitHub-to-Argo CD event delivery using AWS API Gateway and Lambda behind WAF controls. Supported migration of 35+ services across 10+ teams without migration-related customer downtime.
- **Deployment Safety & Failure Recovery:** Root-caused an Argo CD ApplicationSet reconciliation failure that deleted live StatefulSets. Implemented fail-closed safeguards protecting workloads across 46+ managed Applications while preserving intended permission-revocation behavior.
- **Reliability Engineering & Root-Cause Analysis:** Investigated recurring node-wide Cilium networking failures involving HTTP 429 responses from its endpoint API. Correlated Grafana metrics and Observe logs with Karpenter node churn, validated a staged upstream fix, and improved alerting. No recurrence was observed for over a year.
- **Observability, SLOs & Cost Optimization:** Implemented monitoring and service-level objectives using Prometheus, Grafana, Loki, CloudWatch, and synthetic checks. Reduced EKS-related CloudWatch custom-metric costs by approximately 80% while preserving operational visibility, and automated unused EBS volume cleanup using Python and AWS Config.
- **Distributed Systems & Performance Engineering:** Operated distributed blockchain infrastructure, indexing workloads, and production RPC/WebSocket services with health-based routing and multi-provider failover. Benchmarked WebSocket infrastructure at approximately 10K requests/second to investigate throughput and performance constraints across network and application layers.

DevOps Engineer | Centricity Inc, New York, United States Oct 2020 - Jan 2022

- **Infrastructure Automation:** Built reusable Terraform modules and CI/CD pipelines to standardize AWS infrastructure provisioning and application delivery.
- **Cloud Architecture & Application Reliability:** Designed and operated services using ECS Fargate, Lambda, API Gateway, SQS, and EventBridge. Migrated a Django application from Lambda to ECS to eliminate recurring cold-start-related HTTP 504 failures.
- **Security & Observability:** Implemented secrets integration, Kubernetes access controls, and application/infrastructure observability using Prometheus, Grafana, EFK, and AWS X-Ray.

Earlier Roles

- **DevOps Engineer / Engineering Lead | Nautilus Technologies** - Aug 2019–Aug 2024, part-time. Led client-facing cloud infrastructure, Kubernetes, CI/CD and security engineering.
- **Cloud Engineer | MainOne Cable** - Jan 2019–Oct 2020. Operated private-cloud and virtualization infrastructure using Hyper-V, Azure Pack and Azure Stack.
- **Technical Support Engineer / Team Lead | Swift Networks** - Oct 2018–Feb 2019. Supported production networks, connectivity troubleshooting and technical escalations.
- **Systems Engineer | RANC Limited** - Nov 2015–Oct 2018. Administered Linux systems and network infrastructure across routing, switching, DNS, DHCP and connectivity troubleshooting.

OPEN SOURCE & ENGINEERING WORK

- **Vigilo** - Endpoint security and host-observability daemon for Linux/macOS.
- **Agent Guard** - Secure authorization and audit boundary for AI-agent tool use.
- **K8sGPT** - improvements to AI-response handling, language behavior and cache invalidation with regression tests.

EDUCATION

- Delta State University - Second Class BEng (Hons Upper), Electrical and Electronics Engineering (2010 - 2015)