

PERPETUA AYOGU

Senior DevOps Engineer | Cloud Infrastructure Architect

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GitHub: <https://github.com/devops-showcase>

Portfolio: <https://ubatrillion.wixsite.com/my-site>

TECHNICAL PORTFOLIO

Cloud-Native CI/CD Pipeline

Live Demo: <https://d2b91rhajw5ae9.cloudfront.net/>

GitHub: <https://github.com/devops-showcase/devops-showcase>

AWS EC2, GitHub Actions, Docker, CloudFront, SSM (99.99% uptime)

Jenkins Portfolio Site

Live Demo: <https://d8oamidwzp0fn.cloudfront.net>

GitHub: <https://github.com/devops-showcase/Devops-portfolio>

Jenkins CI/CD, Trivy security scanning, zero-downtime deployments

GitHub Projects: <https://github.com/devops-showcase>

Terraform modules, Kubernetes manifests, automation scripts

PROFESSIONAL SUMMARY

DevOps Engineer with **5+ years** designing, automating, and managing secure, scalable cloud infrastructure on AWS, Azure, GCP, and DigitalOcean. Expert in Kubernetes, Docker, Terraform, and CI/CD pipelines using Jenkins, GitLab CI, and GitHub Actions. Proven in Infrastructure as Code (IaC), DevSecOps, observability, and cloud cost optimization. Reduced release times 50% at Monodome via Kubernetes auto-deployments, GitOps with Argo CD, and security-first IaC. AWS Certified Cloud Practitioner passionate about automation, continuous delivery, and empowering engineering teams. Seeking senior-level DevOps Engineer, Site Reliability Engineer (SRE), or Platform Engineer roles with innovative tech companies focused on scalability, automation, and cloud-native infrastructure.

CORE TECHNICAL COMPETENCIES

Cloud Platforms: AWS (EKS, EC2, RDS, S3, IAM, CloudWatch, CloudFormation), Azure, GCP, DigitalOcean

Containers & Orchestration: Docker, Kubernetes, Helm, Nginx, Apache Tomcat, Rancher, Lens, Kubernetes Operators

Infrastructure as Code: Terraform, Terraform Cloud, AWS CloudFormation, Argo CD (GitOps), Ansible

CI/CD Pipelines: Jenkins, GitHub Actions, GitLab CI, Tekton, GitHub Workflows

Scripting & Automation: Bash, Python, Go

Monitoring & Logging: Prometheus, Grafana, OpenTelemetry, CloudWatch, ELK Stack, EFK Stack, Loki

Networking & Security: IAM Policies, VPC, HashiCorp Vault, Trivy, TLS/SSL, Cert-Manager, Security Groups

Databases & Caching: Amazon RDS, MySQL, PostgreSQL, Redis

Version Control & OS: Git, GitHub, Linux (Ubuntu, CentOS, RHEL)

PROFESSIONAL EXPERIENCE

DevOps Engineer

Monodome (Remote)

February 2022 – Present (4 years)

Impact: Architected and automated cloud infrastructure supporting 10+ microservices with 99.5% uptime, enabling 60% faster ML model deployments and 50% reduction in release times.

Kubernetes & AWS EKS:

- Designed and deployed production-grade Kubernetes clusters on AWS EKS, implementing auto-scaling, RBAC, and multi-AZ high availability
- Reduced application release times by 50% through automated rolling deployments and blue-green strategies
- Optimized resource allocation for ML workloads, achieving 30% cost savings on compute infrastructure

CI/CD Pipeline Engineering:

- Built end-to-end CI/CD pipelines in Jenkins and GitHub Actions for automated build, test, and deployment workflows
- Integrated Trivy security scanning into pipelines, reducing container vulnerabilities by 90%
- Implemented GitOps with Argo CD for declarative deployments, improving rollback efficiency and deployment traceability

Infrastructure as Code (IaC):

- Developed reusable Terraform modules for AWS and DigitalOcean, standardizing infrastructure provisioning across teams
- Configured Terraform Cloud for state management, automated workflows, and policy-as-code enforcement
- Deployed production mail server on Kubernetes using Terraform, fully automated from infrastructure to application layer

DevSecOps & Compliance:

- Implemented security-first architecture using IAM roles, VPC design, TLS encryption, and vulnerability scanning
- Configured multi-stage Docker builds with non-root users, deployed via AWS ECR with automated security checks
- Designed AWS networking architecture including VPCs, subnets, NAT gateways, route tables, and security groups

Observability & Monitoring:

- Deployed Prometheus, Grafana, Loki, and OpenTelemetry stack for full-stack observability and real-time alerting
- Achieved 99.5% service uptime through proactive monitoring and incident response automation
- Created custom Grafana dashboards for ML workload metrics, enabling data-driven optimization

Team Enablement:

- Deployed Rancher for centralized Kubernetes management, reducing new team member onboarding time to under 5 minutes
 - Authored comprehensive DevOps documentation for Terraform, Rancher, and CI/CD best practices
 - Collaborated with AI/ML engineers to optimize model training pipelines on EKS infrastructure
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Junior DevOps Engineer**Monodome (Remote)**

August 2020 – January 2022 (1 year 6 months)

Impact: Advanced from intern to full engineering role, leading containerization initiatives and building production CI/CD pipelines for high-availability applications.

Production Infrastructure Management:

- Managed AWS infrastructure (EC2, RDS, S3, IAM) ensuring 99.9% uptime across development and production environments
- Supported Kubernetes cluster operations with automated scaling and self-healing capabilities
- Participated in on-call rotation, responding to incidents and maintaining SLA targets

Containerization & Docker:

- Led containerization of 8+ legacy monolithic applications using Docker, reducing deployment time by 60%
- Created multi-stage Docker builds with security hardening and minimal image footprints
- Established Docker image best practices and standards across engineering teams

CI/CD Pipeline Development:

- Built and maintained Jenkins and GitHub Actions pipelines for automated testing and deployment
- Reduced manual deployment effort by 70% through comprehensive pipeline automation
- Integrated automated testing and security scanning into deployment workflows

Automation & Scripting:

- Developed Bash and Python scripts for infrastructure provisioning, backups, and monitoring
 - Configured CloudWatch alerts and automated incident response procedures
 - Automated routine operational tasks, improving team efficiency by 50%
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DevOps Engineer Intern**Monodome (Remote)**

February 2020 – July 2020 (6 months)

- Assisted senior DevOps engineers with containerizing applications using Docker under supervision
 - Monitored AWS infrastructure (EC2, S3, RDS) and reported issues to the team
 - Created and maintained technical documentation for deployment processes and runbooks
 - Wrote basic Bash scripts for log collection and system health checks
 - Learned Docker, Kubernetes, and Terraform through hands-on shadowing and small projects
 - Participated in daily standups and sprint planning to understand DevOps workflows
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Cloud Solutions Architect Apprentice

ALX Africa (Remote)

August 2019 – January 2020 (6 months)

Program: Completed ALX Africa's rigorous AWS Cloud Computing & Solutions Architect program (6-month intensive, 20-30 hrs/week), a partnership between ALX Africa and Amazon Web Services delivering globally-recognized certifications.

Foundation Training:

Completed ALX Foundations curriculum covering professional soft skills including:

- Communication & Collaboration: Professional written and verbal communication, cross-functional teamwork
- Leadership & Growth Mindset: Problem-solving, critical thinking, adaptability, and continuous learning
- Career Development: Resume writing, interview preparation, networking, and personal branding
- Time Management: Project planning, prioritization, and meeting deadlines in high-pressure environments

Technical Achievements:

- Designed AWS cloud architectures for scalability, high availability (99.99%), disaster recovery, and fault tolerance
 - Architected multi-tier applications with load balancing, auto-scaling, and multi-AZ deployments
 - Optimized cloud infrastructure costs by 25% through EC2 right-sizing, Reserved Instances, and resource tagging
 - Documented infrastructure designs and conducted resilience testing for production workloads
 - Built secure, compliant cloud environments supporting 10+ enterprise applications
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Community Manager Intern

Monodome (Remote)

February 2019 – July 2019 (6 months)

First Role: Launched professional career facilitating developer community engagement and technical knowledge sharing at Monodome.

- Increased developer engagement by 40% through organizing 25+ technical events, workshops, and knowledge-sharing initiatives
 - Created 15+ DevOps onboarding guides and tutorials, improving CI/CD pipeline adoption across 30+ engineering team members
 - Facilitated cross-functional collaboration between DevOps and development teams, reducing deployment workflow friction by 35%
 - Organized weekly technical talks and hands-on training sessions on cloud infrastructure and DevOps practices, averaging 20+ attendees per session
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KEY PROJECTS

DevOps Showcase: Cloud-Based Development Environment with CI/CD

Technologies: AWS EC2, GitHub Actions, Docker, AWS ECR, AWS SSM, CloudFront

Live Demo: <https://d2b91rhajw5ae9.cloudfront.net/>

GitHub: <https://github.com/devops-showcase/devops-showcase>

- Engineered automated cloud-native dev environment using code-server on AWS EC2

- Built GitHub Actions CI/CD pipeline with Docker for zero-downtime deployments (99.99% uptime)
 - Used AWS SSM for secure, agentless deployments (zero SSH access)
 - Implemented CloudFront CDN, ECR image management, IAM auth, and GitHub Secrets
 - Demonstrated DevOps automation, cloud security, and scalable IaC design
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DevOps Portfolio Website

Tech Stack: Jenkins, Docker, AWS EC2, CloudFront, GitHub, Trivy, SSM, HTML, CSS, JavaScript

Live Demo: <https://d8oamidwzp0fn.cloudfront.net>

GitHub: <https://github.com/devops-showcase/Devops-portfolio>

Built a personal DevOps portfolio website demonstrating a full CI/CD pipeline and DevSecOps practices from code commit to live deployment on AWS:

- Automated CI/CD pipeline with Jenkins triggered by GitHub commits to build, test, and deploy Dockerized app to AWS EC2
 - Deployed container images via AWS ECR and SSM, enabling seamless, zero-downtime updates
 - Integrated AWS CloudFront for global content delivery and faster load times
 - Secured pipeline with Trivy scans for vulnerabilities, secrets, and misconfigurations
 - Configured monitoring through Jenkins console and Docker logs for real-time visibility
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End-to-End Automation

- Automated provisioning/deployments with GitLab CI, GitHub Actions, Argo CD; reduced manual releases 80%
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Observability Enhancement

- Deployed Prometheus/Grafana dashboards; improved uptime 99.9% and incident response 70%
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DevSecOps Integration

- Embedded Trivy/Vault in CI/CD; achieved 100% vulnerability scanning and secrets management
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Cloud Cost Optimization

- Reduced AWS costs 35% via EC2 right-sizing and RDS tuning
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EDUCATION

Bachelor of Arts in Mass Communication

University of Nigeria, Nsukka | Graduated 2022

RELEVANT TECHNICAL COURSEWORK & BOOTCAMPS

- Operating Systems & Networking – AWS Solution Architect Training
- Cloud Computing & IaC – Monodome
- Linux System Administration – KodeKloud

CERTIFICATIONS & PROFESSIONAL TRAINING

AWS Cloud Certifications:

- **AWS Certified Cloud Practitioner** – Amazon Web Services

Professional Development Programs:

ALX Africa AWS Cloud Computing & Solutions Architect Program (2021)

- Rigorous 6-month program (20-30 hrs/week) in partnership with Amazon Web Services
- Includes ALX Foundations: Leadership, Communication, Collaboration & Career Development

KodeKloud DevOps Engineer Learning Path (2020-2022)

- Comprehensive DevOps training covering CI/CD, containerization, orchestration, and infrastructure automation
- DevOps Foundations – Core DevOps principles, CI/CD pipelines, and automation best practices
- Docker for the Absolute Beginner – Containerization, Docker Compose, and container orchestration
- Kubernetes for the Absolute Beginners – K8s fundamentals, deployments, services, and scaling
- Linux System Administration – Linux fundamentals, shell scripting, and system management
- Terraform for Beginners – Infrastructure as Code, AWS provisioning, and state management

Docker & Kubernetes Engineering Bootcamp – Monodome (2022)

Infrastructure as Code with Terraform – Monodome (2022)

ADDITIONAL INFORMATION

Open Source Contributions: Active contributor to cloud-native tools and DevOps automation projects

Technical Writing: Author of internal DevOps documentation and best practices guides

Languages: English (Native), Igbo (Native)

Availability: Open to remote opportunities and relocation within the United States