EMMANUEL FORNAH

Cloud Engineer | AWS & Azure | Healthcare & Enterprise
Dallas–Fort Worth, TX | emmanuelfornah82@gmail.com
LinkedIn: linkedin.com/in/emmanuel-fornah-60988418a | GitHub: github.com/emmanuelfornah | GitLab: gitlab.com/emmanuelfornah

SUMMARY

Cloud engineer who solves the problems regulated healthcare and enterprise IT teams live with: cloud bills that outgrow the workload, manual patient intake that delays care, outages with no tested recovery plan, and protected health data that must stay where regulators require. Building a hybrid hospital platform (on-prem to Azure, then AWS) that keeps patient data on-site and recovers from a site-wide outage in under an hour. Eight years of 24/7 clinical lab operations under CLIA/CAP: I know what downtime and audit findings cost a hospital.

WHAT I BUILT (PROBLEM → SOLUTION → RESULT)

Hybrid Cloud Platform (in progress) | gitlab.com/emmanuelfornah/hybrid-cloud-platform
- **Problem:** hospitals can't move patient data fully to the cloud (data residency, on-prem clinical systems), yet one storm or power loss can take their only data center offline.
- **Built:** two-node on-prem Proxmox cluster as code (Ansible, Packer hardened images, Terraform), rebuildable from scratch.
- **Roadmap:** Phase 1 Azure (Site-to-Site VPN, Entra ID, Azure Policy residency guardrails); Phase 2 multi-account AWS with automated failover: back online in under 1 hour, under 15 minutes of data lost, patient data stays on-site.

HealthLab Portal — patient onboarding | healthlabportal.com
- **Problem:** manual identity checks, paper intake and insurance verification slow lab test orders and create billing rework.
- **Result:** one serverless workflow verifies identity, reads documents and checks eligibility before the order (Lambda, Step Functions, Rekognition, Textract, Cognito), with a STRIDE threat model and HIPAA safeguards mapping.

Deployment Evolution — right-sizing a live platform | appointments.emmanuelfornah.com
- **Problem:** a scheduling app on Kubernetes (EKS) cost $180–220 a month, far more than its workload needed.
- **Result:** moved it to Terraform-built Graviton EC2 across two zones for $50–70 a month (about 70% less), with zero-downtime blue/green releases.

PedalWorks — refactoring a monolithic app to serverless | pedalworks.emmanuelfornah.com
- **Problem:** a Django/RDS e-commerce monolith ran on always-on servers, so every release risked the whole store, scaling meant scaling everything, and stored cloud keys were a breach risk.
- **Result:** refactored it into serverless microservices (Lambda, API Gateway, DynamoDB, SAM) that scale and deploy independently, cost only per request, run with least-privilege access per service, and ship through CI/CD with no stored credentials (GitHub Actions OIDC).

TECHNICAL SKILLS

Cloud: AWS (EC2, Lambda, S3, DynamoDB, RDS, API Gateway, Step Functions, VPC, Route 53, CloudFront); Azure (Entra ID, RBAC, Portal/CLI)
AI/ML: Amazon Bedrock, LangChain, SageMaker, Rekognition, Textract
IaC, Automation & Hybrid: Terraform, Ansible, Packer, CloudFormation, SAM, CDK, Proxmox VE, multi-account AWS
Containers & CI/CD: Docker, Kubernetes, EKS, ECS Fargate, GitLab CI, GitHub Actions (OIDC), CodePipeline/CodeDeploy
Languages & Observability: Python (Boto3), Bash, Node.js, React; Prometheus, Grafana, CloudWatch, X-Ray, KMS, IAM least privilege

PROFESSIONAL EXPERIENCE

Medical Laboratory Technologist | Parkland Health | Oct 2021 – Present
Shift Lead · Roche Key Operator · Trainer
- Key operator for Roche Cobas Pro analyzers supporting one of the nation's busiest emergency departments: calibration, maintenance and troubleshooting.
- Verify and release results across Epic and Bio-Rad Unity Real Time using Westgard rules; own 24/7 monitoring and escalation; enforce CLIA/CAP compliance and audit-ready documentation.

Medical Laboratory Scientist | Reliance MedLabs | Jun 2018 – Oct 2021 — generalist; owned QC and troubleshooting; trained 6+ staff; supervised night shifts.

Clinical Supervisor & LIS Integration Engineer | Ecomed Advanced Medical Diagnostic Center | Apr 2014 – 2017
- Managed laboratory information systems integrations and configuration management, including HL7 interfaces between Beckman Coulter analyzers and the lab information system; Beckman Coulter operator; led a 10-person team across three lab sections.

Systems Engineer | Emergency Health – House of Grace | Jan 2010 – May 2014
- Administered Linux servers in a healthcare setting: user accounts and permissions, server management and maintenance, troubleshooting for staff, and cloud-adjacent infrastructure tasks.

CERTIFICATIONS & EDUCATION

- AWS Solutions Architect – Associate · AWS Developer – Associate · AWS AI Practitioner · AWS Cloud Practitioner · HashiCorp Terraform Associate
- M.S. Cloud Computing Systems, GPA 4.0, and Graduate Certificate, Cloud Computing and Networking | UMGC | Oct 2026
- AWS Cloud Institute, Cloud Application Developer + AI for Developers | Mar 2025 – Mar 2026
- B.S. Biochemistry, University of North Texas · Post-Bacc Certificate, Clinical Laboratory Science, Tarleton State · MLS(ASCP), C(ASCP)