OLUWAPELUMI ADENIKINJU

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Experience

Cloud Infrastructure as Code Engineer Jul 2025–Present

OPTAFI

- Engineered a multi-cloud PaaS solution featuring RESTful CRUD services built on .NET and Angular with native AWS and Azure SDK integration.
- Streamlined enterprise tenant provisioning and automated lifecycle management for HIPAA-compliant healthcare virtual machines, ensuring multi-region redundancy and business continuity across dual cloud deployments through resilient cloud architecture patterns.
- Created a Drift Detection Service with scheduled scans, automated remediation, ignore rules and nightly reports of unregistered resources, covering VMs, disks, backups, route tables, NICs, NAT gateways and firewalls on both clouds.
- Designed an Infrastructure as Code templating system supporting UI-driven and Excel-based deployments and templates captured from existing cloud instances; added a deployment dry-run that validates each deployment group before any change reaches the cloud.
- Delivered compliance and governance features: live Security Compliance, Orphaned Resources and inventory reports with CSV export, cloud billing integration, AWS quota checks, audit trails, access control pages and a consolidated least-privilege IAM policy under version control.
- Automated domain join, VPC/Directory Service provisioning, domain user management and bulk hostname rename across AWS and Azure using Bash and the cloud SDKs, including Entra Domain Services join with encrypted credentials.
- Utilized Ansible, Prometheus, and Grafana, adding agentless cloud-native metrics and self-provisioning Grafana with a one-click repair action to create a monitoring stack for compute resources.
- Fixed monitoring cost and correctness defects: restored 14-day retention, stopped 75% of stored samples being discarded, cut scrape-status reads 146x.
- Implemented Azure Application Gateway WAF and AWS WAF protections for public-facing APIs and management endpoints, enforcing OWASP Top 10 controls and reducing exposure to SQLi/XSS vectors.
- Started the platform's test infrastructure: mocked AWS/Azure SDK clients, integration tests and Coverlet coverage, plus API tests across 29 controllers and 262 actions run by a weekly CI pipeline; fixing failing tests.
- Collaborated on integrating AI-based compliance checks and anomaly detection into monitoring workflows, leveraging model APIs to identify drift and policy violations in real time.

Principal System Architect Nov 2024–May 2025

DEV TECHNOLOGY – COMMODITY FUTURES TRADING COMMISSION

- Led DevOps modernization of SSO using OIDC and integrated Terraform-based Kubernetes infrastructure on AWS and Azure, deploying ingress behind Azure Application Gateway WAF for AKS to secure public endpoints.
- Defined a containerization and orchestration roadmap to move legacy systems to Docker and Kubernetes microservices on AWS, using reusable Terraform modules to provision virtual networks, compute, IAM roles and security groups in AWS and Azure with WAF and TLS termination patterns.
- Designed and maintained Azure DevOps CI/CD pipelines using C# and PowerShell to improve deployment speed and reliability.
- Integrated AI-driven monitoring and incident classification into CloudWatch and Azure Monitor with Prometheus and OpenTelemetry, improving root-cause analysis and proactive remediation.
- Built monitoring dashboards in AWS CloudWatch, reducing incident response time by 40%.
- Modernized front-end architecture during the cloud migration from Azure to AWS, using ASP.NET MVC and Kendo UI to streamline UI/UX and improve maintainability.
- Authored and maintained SOPs, cloud migration documentation, incident response workflows and CI/CD processes.

Azure Cloud Engineer 2 Dec 2020–Sep 2024

MICROSOFT – SUBSTRATE INTELLIGENCE: AI PRIVACY AND DATA RETENTION

- Architected Azure DevOps CI/CD pipelines integrating ARM/Bicep deployments and application workflows, automating full SDLC delivery across secure Azure environments.
- Designed and managed Azure IaaS/PaaS architectures, including Data Lake, Service Fabric, AKS and Event Hubs, improving scalability, resiliency and performance, with public workloads routed through Azure Application Gateway WAF and Front Door for L7 protection.
- Automated infrastructure provisioning, credential rotation and policy enforcement with PowerShell and Python, reducing deployment time by 35%.
- Implemented Azure Policy, Security Center, Managed Identities and AAD integration to maintain FedRAMP and SOC 2 compliance across public and government clouds.
- Led disaster recovery and business continuity testing, sustaining 100% uptime during regional failovers and securing mission-critical workloads.
- Developed monitoring frameworks using KQL, Geneva, Azure Monitor and Power BI to proactively detect capacity, privacy and compliance risks across Public and Azure Government clouds, correlating WAF and security telemetry to improve threat visibility and audit readiness by 40%.
- Partnered with Microsoft AI engineering teams to integrate AI-assisted privacy monitoring and anomaly detection models into Azure telemetry pipelines, improving signal accuracy and reducing false positives for GPT-3.

Cloud Engineer Jun 2017–Sep 2019

BOEING

- Led the migration of legacy systems to AWS GovCloud, increasing operational efficiency by 40% through cloud-native solutions and containerized microservices.
- Designed microservices architecture on AWS EKS using Kubernetes and Docker, improving scalability, portability and fault isolation across workloads.
- Automated infrastructure provisioning with Terraform and managed CI/CD pipelines in Jenkins, integrating SonarQube scans to ensure code quality and security.
- Implemented AWS Config, Security Hub and Backup automation, enforcing compliance, security baselines and rapid recovery.
- Orchestrated complex workflows using AWS Step Functions to manage microservices and serverless architecture.
- Applied AWS security practices including IAM for fine-grained access control, KMS for encryption and Secrets Manager for credential management.
- Developed serverless APIs in Python and TypeScript using AWS CDK, Lambda, API Gateway and DynamoDB, streamlining development and deployment cycles.

Skills

AWS (EC2, VPC, EKS, Lambda, IAM, SSM, ACM, WAF) · Azure (AKS, Service Fabric, Data Lake, Entra ID, Application Gateway) · Terraform · AWS CDK · CloudFormation · ARM/Bicep · Docker · Kubernetes · AKS · EKS · Azure DevOps · Azure Dev Ops · AWS CodePipeline · Azure Releases · Jenkins

Education

University of Pittsburgh Dec 2016

Master of Science, Electrical Engineering

University of Maryland, Baltimore County May 2015

Bachelor of Science, Computer Engineering

Certifications

AWS Certified Solutions Architect – Associate, Amazon 2020

Azure AI Fundamentals (AI-900), Microsoft 2024

Certified ScrumMaster, Scrum Alliance 2022