

Arun R. Devalam

Lead Platform Engineer

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Lead Platform Engineer with 10+ years of experience architecting and modernizing cloud-native and hybrid platforms using DevOps and automation-first principles.. Seasoned engineering leader who led zero-downtime migrations, large-scale IoT deployments, and security-driven infrastructure transformations that improve reliability while reducing cost.

CORE CAPABILITIES

Platform Architecture: AWS (EC2, VPC, IAM, RDS), GCP (IAM, BigQuery), Multi-Account, Hybrid & Multi-Cloud, High Availability

Infrastructure as Code: Terraform, Ansible ; **CI/CD & Automation:** GitHub Actions, Jenkins

Containerization & Orchestration: Kubernetes

IoT & Distributed Systems: Soracom, Kore, Kafka

Observability & Reliability: Datadog, Prometheus, Grafana (AWS managed)

Security & Identity: IAM Identity Center, SSO/MFA, CIS Benchmarks

Data Platforms: Airflow (MWAA), Redshift, BigQuery, MySQL

PROFESSIONAL EXPERIENCE

Lead Platform Engineer

Freeosk Inc (2021 – Present)

Own platform architecture spanning cloud, IoT, security, and observability for nationwide production infrastructure. Act as senior technical lead driving large-scale modernization initiatives, influencing design decisions, and improving platform reliability, scalability, and security.

Cloud Migration: Led zero-downtime migration from on-prem to AWS; architected resilient cloud-native environments that reduced SLA response times by ~50%, lowered infrastructure spend from \$40K to \$25K monthly, eliminated \$300K in planned hardware purchases, and incorporated disaster recovery without increasing operating cost.

IoT Platform Transformation: Led vendor evaluation and migration from Kore Wireless to Soracom, reducing monthly connectivity costs by 30% and eliminating SIM overage charges. Built automated, event-driven SIM lifecycle workflows and monitoring that reduced provisioning effort by ~30 minutes per SIM and lowered paid field support visits by 30%.

AI Enablement: Led enterprise rollout of Amazon Q Developer and Business; integrated secure knowledge search across GitHub, Confluence, and Jira.

AI Platform Automation: Built a custom Model Context Protocol (MCP) server using Python and AWS SDK to enable AI assistants to deploy and manage ECS Fargate applications via natural language; integrated GitOps workflows to automatically generate deployment PRs, build Docker images, and monitor ECS services.

Security & Identity: Modernized identity with Cognito + Active Directory SSO and IAM Identity Center with Duo MFA; directed enterprise security audits and penetration testing remediation.

Hybrid & IoT Network Architecture: Architected secure hybrid connectivity between on-prem, AWS, and external providers using Site-to-Site VPN, Transit Gateway, and VPC peering; deployed AWS Client VPN for workforce access and implemented WireGuard tunnels for secure device-level communication.

Observability: Orchestrated migration from New Relic to Datadog; implemented Prometheus and Grafana to close database-level visibility gaps; automated agent deployments using Ansible and Terraform.

Platform Modernization: Directed enterprise OS and database lifecycle upgrades (RHEL 6→8; MySQL 5.7→8), reducing technical debt and operational risk. Architected Kubernetes platform powering Airflow for scalable data orchestration.

Multi-Cloud Architecture: Governed GCP IAM including service accounts, roles, and cross-project permissions; architected secure integrations between AWS S3 and GCP BigQuery for external partner data exchange while managing Google Play application access and API endpoint security.

Systems Engineer

CME Group (2017–2021)

Automated AWS/on-prem Linux infrastructure, built Jenkins/Ansible CI/CD pipelines, managed Kafka replication with MirrorMaker, and deployed data platforms on EMR.

Infrastructure Engineer

Northwestern Mutual (2015–2016)

Supported Linux, virtualization, and storage platforms; contributed to 400TB+ NetApp/Hitachi migrations and automated RHEL provisioning across VMware and KVM.

EDUCATION

MS, Computer Science, Roosevelt University; BS, Applied Mathematics, Illinois Tech

