

Geoffrey Miller

SUMMARY

Infrastructure Director & Principal Cloud Architect with 12 years designing, leading, and operating cloud platforms (20 years in IT overall). Deep expertise in AWS Kubernetes and the broader CNCF ecosystem with a strong focus on developer efficiency and platform scale. Designs platform services that unify tools into a single end-to-end experience using policy as code, mission control patterns, and fully automated CI/CD pipelines. FinOps specialist who pairs spend analytics with real-time event-driven automation to right-size resources and cut cloud costs by 30 percent or more without impacting reliability. Known for solving complex challenges through simple repeatable engineering patterns, mentoring high-performing teams, and managing stakeholders across business and technology. Advanced leader in AI-driven agentic workflows who built organization-wide coding platforms that combine AI-assisted development with controlled agent execution, generating service catalogs and policy code that triple developer throughput and maintain security, compliance, and consistency. Ready to bring forward-thinking cloud strategy and hands-on engineering leadership to highly regulated enterprises.

SKILLS

Cloud Strategy, Infrastructure Architecture, Platform Engineering / DevOps / DevSecOps, Event-Driven Platform Services, IaC & Policy-as-Code (Terraform, Pulumi, OPA), CI/CD & GitOps, Security, Compliance, FinOps, SRE, Observability & Incident Response, Team Leadership & Developer Productivity, Agentic Workflow Integration, Agentic Coding Automation and Governance

TECHNICAL ACHIEVEMENTS

AUTOMATED CLOUD COST OPTIMIZATION: Architected event-driven automation platform for intelligent, on-demand non-production environments, cutting spend by 70%+ across multiple organizations through scheduled teardowns and usage-based spin-ups. Expert in FinOps, cost allocation, and advanced optimization techniques like reserved instances and spot market utilization.

KUBERNETES DEPLOYMENT AUTOMATION: Implemented scalable and secure EKS blueprints with GitOps, admission control, and vertical and horizontal pod and node autoscaling. Developed advanced reference architectural patterns for simplified organizational adoption, incorporating FinOps automation to scale down cost and optimizing utilization of spot instances for cost optimization.

CLOUD GOVERNANCE & CONTROLS: Policy-as-Code gates ensuring FFIEC, PCI-DSS, SOC 2 compliance across 100+ AWS accounts at multiple FinTech organizations, including Early Warning (Zelle Pay), REPAY, Silicon Valley Bank, and First Citizens Bank.

AI-DRIVEN ENGINEERING & CODING: Architected and implemented organization-wide platforms combining AI-assisted development with controlled agentic execution. These platforms generated production-ready Infrastructure as Code (IaC) and policy code, which significantly tripled engineering throughput by ensuring

consistency, compliance, and robust hallucination detection. This strategic initiative optimized development workflows and enhanced code quality and AI-safety.

SECURE AWS LANDING ZONE: A robust, multi-account architecture designed to support over 100 AWS accounts, featuring centralized networking with Transit Gateway, comprehensive logging, and a policy-as-code approach. This secure foundation enables simplified, cost-effective, and highly scalable onboarding for 30+ development teams, ensuring consistent governance and operational efficiency across the organization. Architected and led teams that provided central, shared services to the organization for everyday needs, such as authentication, network configuration, and secrets management.

DEVELOPER PRODUCTIVITY & PLATFORM ENGINEERING: Drives developer efficiency through custom tools (Devbox, NixOS containers, CLIs) that simplify complex backend interactions, enabling developers to leverage powerful engineering patterns without deep specialization. Optimizes local development experiences and CI/CD workflows for rapid feedback, enforces policy standards, and accelerates iteration cycles. Defines secure and productive policies for integration environments.

PROFESSIONAL EXPERIENCE

Director of Cloud Infrastructure - First Citizens Bank - Remote from Tempe, AZ - Jul 2021 - Present

- Guided the team through the transition from Silicon Valley Bank to First Citizens Bank, including platform integrations and migrations.
- Built secure AWS Landing Zone (100+ accounts) with centralized logging and IAM federation.
- Cut AWS spend 30% YoY via FinOps dashboards and automated rightsizing.
- Enforced policy-as-code gates for continuous FFIEC / PCI-DSS / SOC 2 compliance.
- Designed sub-5 ms hybrid connectivity (Direct Connect, ExpressRoute, Megaport).
- Led and mentored 12-member platform team; founded Cloud Community of Practice.
- Integrated DevSecOps tool chain (Sentinel, Snyk, static & SCA scans) into CI/CD.
- Introduced an "override-as-code" workflow that embeds risk-acceptance and governance logic directly in Git; every exception now carries a tracked, peer-reviewed audit trail.
- Decomposed a monolithic repo into team-owned repositories with enforced CODEOWNERS, mandatory approver gates, and policy-as-code checks (SAST/SCA, compliance scans, exec-ready reports).
- Result: security remained airtight while average feature lead time dropped from 6-12 weeks to days.
- Consolidated "VPC-per-service" sprawl into a shared-services VPC hub using Transit Gateway, Route 53 resolver rules, and centralized interface endpoints -- shrinking the estate from hundreds of VPCs to a few strategic network segments.
- Replaced thousands of duplicate interface endpoints with a single, multi-AZ endpoint hub, dropping VPC-endpoint costs from a top-three line-item to a negligible spend and saving hundreds of thousands of dollars annually.
- Engineered and implemented an enterprise-grade, bank-hardened Kubernetes platform on Amazon EKS -- multi-AZ, CIS-benchmark hardened, OPA/Gatekeeper policies, and automated node patching for zero-day response.
- Sat on the bank's AI governance board, crafting secure onboarding patterns for GenAI/ML tools, defining data-access guardrails, and fast-tracking compliant adoption of new AI capabilities.

Director of Cloud Infrastructure - REPAY - Remote from Tempe, AZ - Oct 2017 - Jul 2021

- Built green-field AWS platform (Terraform, Packer, Kubernetes); passed PCI with zero criticals.
- Launched Backstage Internal Developer Platform and Documentation-as-Code, ensuring documentation updates accompanied code changes to drive consistency and coverage. This enabled version control for

documentation, reduced internal documentation drift by 75%, and served as groundwork for further internal developer platform concepts.

- Grew team from a single engineer to a 10-person SRE team and a 5-person operations team; led a 3-person team of full-stack developers building platform services (authentication, mutex locking, configuration, secrets management). Provided 24/7 on-call support and incident response with PagerDuty; managed enterprise-grade vendor support contracts.
- Engineered and deployed enterprise observability and monitoring solutions (Prometheus, Loki, Grafana) to enhance system visibility and incident response.
- Delivered multi-account Landing Zone with guardrails; automated FinOps saved 30% YoY.
- Built a secure EKS platform with GitOps, admission control, and autoscaling.
- Architected and implemented reusable patterns, enabling teams to rapidly onboard new applications, consume shared services, and integrate with the secure landing zone and edge networking, reducing cloud migration time from months to a single day while leveraging advanced scaling, security, and platform features.

DevOps Engineer - Early Warning Services - Scottsdale, AZ - Jan 2017 - Oct 2017

- Launched Zellepay. Large-scale SaaS payments service; scaled to 25 M users with zero downtime.
- Built immutable CI/CD pipelines and containerized microservices (daily releases).
- Automated blue-green rollouts and A/B tests, reducing RTO to under 5 min.

Principal Cloud Architect - Thinkvine - Remote from Chandler, AZ - Apr 2016 - Jan 2017

- Migrated Windows & Linux workloads to AWS; cut hosting cost by 45%.
- Converted legacy infra to Terraform IaC with CI/CD; 75% faster deployments.

Lead DevOps Engineer - OWNZONES Media Network - Remote from Scottsdale, AZ - Apr 2016 - Jul 2016

- Designed green-field AWS infra; saved USD 300k/yr via S3 lifecycle + Glacier.

Applications Developer - State of Arizona - Dept. of Administration - Phoenix, AZ - Jan 2015 - Apr 2016

- Introduced Git and automated unit testing to mainframe COBOL systems.

ADDITIONAL EXPERIENCE

Undergraduate and Graduate Teaching Assistant at NIU 2012 - 2015

Mainframe Technical Analyst Intern at Bank of America: 2013 & 2014

Help Desk Manager at Universal Technical Institute 2010 - 2010

Help Desk Manager at J-Curve Technologies 2009 - 2010

Systems Support Analyst at Bank of America 2006 - 2009

Desktop Repair at Geek Squad 2001 - 2006

EDUCATION

Northern Illinois University - DeKalb, IL Master of Science (MS), Computer Science - Jan 2015

Northern Illinois University - DeKalb, IL Bachelor of Science (BS), Computer Science - Jan 2013

PUBLIC SPEAKING AND COMMUNITY

DECA National Competition: - 04/2004 - First Place in Extemporaneous Speaking; **Top 10 Overall** Finalist

DECA Illinois State Competition: - 03/2004 - First Place in Extemporaneous Speaking; **Third Place Overall**

KEYWORDS

CNCF and Adjacent: Kubernetes (k8s), Docker, Helm, Kustomize, Istio, Prometheus, minikube, kind, k3s, Fluentd / Fluent-bit, cert-manager, external-dns, external-secrets, Karpenter, KEDA, Kyverno, Cilium

Languages and Frameworks: Go / Golang, Python (pydantic), JavaScript / TypeScript (Node.js), CUE / Cuelang, Bash, YAML / JSON, PowerShell, SQL, JQL, Nushell

Developer Productivity: pre-commit, Dependabot / Renovate, GitHub Copilot, Devbox, Nix / NixOS, devcontainer

Everything as Code: Documentation as Code, Policy as Code / PaC, Configuration as Code (Ansible, Chef, Puppet), GitOps, Security as Code, Infrastructure as Code (Terraform, Pulumi, CloudFormation, Crossplane, Timoni, Packer) / IaC, ChatOps

Platform, FinOps, SRE, and CI/CD: Backstage, Jenkins, Argo CD and Argo Workflows, GitLab CI, GitHub Actions, Tekton, Flux CD, Bamboo, SLI, SLO, error budget, Savings Plans, Cost Explorer, RI optimizer, SLI, SLO, AWS CodePipeline, AWS CodeDeploy, Hashicorp Cloud Platform, Terraform Cloud, Terraform Enterprise, Production Systems, Product Engineering, Product Delivery

Observability: Prometheus, Grafana, Datadog, New Relic, Splunk, ELK Stack, Fluentd / Fluent-bit, OpenTelemetry, PagerDuty, ELK Stack, Datadog, Fluentd/Fluent Bit, CloudWatch, Kibana, Alerting & Monitoring, Tracing, 24x7 Monitoring

Security and Compliance: OPA, Gatekeeper, Falco, Palo Alto Networks, Aqua Security, Snyk, Splunk SIEM, CIS Benchmarks, FFIEC Guidelines, ISO, NIST, Zero Trust, IAM, Zero Trust Architecture, Network Segmentation, Secrets Management, SIEM, AWS Security Hub, OWASP, Security Engineering, Security Architecture

Leadership & Soft Skills: Strategic Planning, Cloud Strategy, Change Leadership, Stakeholder Management, Cross-Functional Collaboration, Executive Communication, Problem-Solving, Analytical Thinking, Data-Driven Decision-Making, Continuous Improvement, Innovative Mindset, Vision Casting, Servant Leadership, Coaching & Mentoring, Talent Development, Conflict Resolution, Risk Mitigation, Agile Methodologies, Fast-Paced Environments, communication skills, articulate, Customer-Facing, Pragmatic, Strategic Thinker, Technical Design, Product Enhancement, Technical Planning, Motivated, Entrepreneurial, Prioritizing, Professional Development, Proven Leadership, Build Relationships, Decision Making, Quick Learner, Empathy, leadership experience, interpersonal skills, leadership skills, lead by example, resolve issues, effect change, mentorship

AI, Agentic Coding & AIOps: OpenAI Codex, GPT-4o, GPT-3o, ChatGPT Assistants API, Anthropic Claude Code, Google Jules (Gemini), Microsoft AutoGen, Aider (open-source), CrewAI, Multi-Agent Orchestration, Agentic Workflows, MLOps, AI/ML Inference, MCP Server

AWS & Cloud Services: EC2, S3, RDS, DynamoDB, Lambda, API Gateway, SNS, SQS, Kinesis, ECS, ECR, EKS, Fargate, CloudFront, Route 53, ALB/NLB/ELB, VPC (Subnets, NACLs, Security Groups), VPN, Direct Connect, CloudWatch, CloudTrail, AWS Config, AWS Organizations, Autoscaling, Autoscale

Cloud Architecture & Best Practices: High Availability / Highly Available, Scalable Architecture, Disaster Recovery, Fault Tolerance, Scalability, Multi-Region Architecture, Multi-Tenant Design, Hybrid Cloud Integration, Blue-Green Deployments, Canary Releases, Infrastructure Resilience, Performance Tuning & Optimization, Modernization, Legacy, Migration, Technical Expertise, System Architecture, IT Infrastructure, Web Servers, Enterprise Architecture, Programming Languages, Troubleshooting, Operating Systems, Linux, Windows, Windows Server, Powershell, IT Architecture, Nginx, Envoy, object-oriented programming, public cloud, SaaS, PaaS, IaaS, Scripting, Vulnerability Management, Knowledge Sharing, Customer Support, Performance Metrics, Unix

Database: MySQL, Redis, DynamoDB, MariaDB, Minio, MongoDB, PostgreSQL, Amazon RDS (PostgreSQL, MySQL, Oracle, SQL Server, MariaDB), Amazon Aurora (MySQL, PostgreSQL), Amazon Redshift, Amazon DocumentDB, Amazon Neptune, Amazon ElastiCache (Redis, Memcached), Apache Cassandra, Couchbase, Google Cloud Spanner, Google Cloud Bigtable, Microsoft SQL Server, Oracle Database, SQLite

Productivity: Microsoft Office Suite (Excel, Word, PowerPoint, Outlook, Teams), Google Workspace (Docs, Sheets, Slides, Gmail, Calendar, Meet), Slack, Zoom

ADDITIONAL INFORMATION

Citizenship: United States