David Mikalova - Cloud Infrastructure Engineer

Seattle, WA | (661) 532-8334 | dmikalova@gmail.com | github.com/dmikalova

Summary

11+ years of experience creating scalable and efficient deployment systems in AWS with a focus on cross-team collaboration and developer experience.

Proficient in automating build, test, and deploy pipelines; container orchestration; microservice management; infrastructure as code; DevOps practices; continuous integration, delivery, and deployment; immutable infrastructure; automated infrastructure testing; infrastructure security; internal developer platforms; and concise documentation.

Skills

- Tools and languages: AWS, DigitalOcean, Kubernetes, Docker, Terraform, Terragrunt, Consul, Vault, Ubuntu Linux, Git, Gitlab CI/CD, Tekton, CircleCI, Jenkins, Ansible, Okta SSO, Bash, Go, JavaScript, Node.js, NPM, Vue.js, and DataDog.
- AWS resources: EKS clusters, EC2 Instances with Auto Scaling Groups and Load Balancers, Lambda Functions, ECS clusters and container registries, S3 buckets, DynamoDB tables, RDS and Aurora databases, Athena queries, API Gateways, IAM policies and roles, CloudFront distributions, KMS encryption keys, Secrets Manager secrets, Route53 hosted zones, GuardDuty findings, and Security Hub controls.

Experience

Logixboard - Senior Site Reliability Engineer - Apr 2022 to May 2024

Accelerated developers by simplifying deployment and infrastructure systems.

- Led infrastructure work for SOC2 type II certification. Led team to identify and incrementally update hundreds of existing AWS resources for compliance and formulated a library of compliant Terraform modules for internal use by developers. Leveraged DataDog to monitor AWS resources for configuration regressions.
- Developed yearly Site Reliability Engineering team roadmaps focusing on developer friction, resulting in an 80% reduction in time spent supporting infrastructure requests and allowing the team to transition from reactive support to proactive feature development.
- Improved analytics team's monthly report reliability by 50% by streamlining deployment of cross-region and cross-account infrastructure including secure database VPC peering.
- Improved system security and developer velocity by centralizing secrets management using HashiCorp Vault with RBAC. Developed TypeScript tools to migrate all secrets and services.
- Reduced monthly AWS costs by 30% ($35K) by implementing tag-based cost analysis, identifying expensive resources and implementing alternatives, autoscaling, or rightsizing.

David Mikalova - Cloud Infrastructure Engineer

- Rearchitected GitLab CI/CD, focusing on pipeline time and compute costs by implementing dependency-aware jobs and triggering. Average pipeline run time reduced from 30 minutes to 10 minutes and monthly compute costs reduced by 60% ($12k).
- Developed TypeScript CLI using the OCLIF framework to standardize infrastructure scripts.
- Migrated internal system access to Okta SSO deployed with Terraform, including AWS, K8s dashboard, DataDog, and Retool. Resulted in enhanced security with Okta RBAC.

Personal Sabbatical - github.com/dmikalova/infrastructure - Jul 2021 to Mar 2022

Open source infrastructure as code for hosting personal web apps.

- DigitalOcean Kubernetes cluster with load balancer, DNS routing, and Let's Encrypt certificates completely driven by Terraform configuration and Kubernetes manifests.
- Vue.js web apps continuously deployed with CI/CD pipeline built on Tekton CRDs.

Navigating Cancer - Senior System Reliability Engineer - Mar 2020 to Jun 2021

Established DevOps principles through a focus on team code ownership.

- Eliminated multi-day queues in CI/CD pipelines by containerizing and parallelizing build, test, and deploy of Ruby monolith in Jenkins.
- Mentored SRE team on structuring composable Terraform modules to ease burden of maintaining infrastructure as code. Documentation for DevOps best practices and standardized configuration resulted in a 100% efficiency improvement by the SRE team as measured by tickets closed.
- Improved security and integrity of millions of patients' data by running disaster recovery exercises with a focus on remedying lapses in code ownership and automation.

Brightcove - Systems Engineer I, II - Sep 2013 to Feb 2020

Lead Systems Engineer on Brightcove Live, the company's fastest growing product.

- Implemented the deployment of a live video streaming system handling millions of concurrent viewers per stream, workloads on thousands of on-demand EC2 instances, and dynamic deployments across 8 AWS regions. Major successful events include the 2018 Winter Olympics, Cricket Australia matches, and Mayweather vs. McGregor boxing match.
- Championed the adoption of an immutable artifact promotion workflow which reduced production downtime incidents in half. Rearchitected deployments to have the same build artifact and infrastructure configuration tested in QA promoted through all environments.
- Managed microservice networking with AWS VPCs and Security Groups across 8 AWS regions including public API Gateways, private microservice networks, and cross-account peering connections to internal company Kubernetes clusters.

Education

AWS certified - Running Containers on AWS EKS - Feb 2021

Arizona State University - B.S. in Chemistry, Minor in Mathematics