

CASE STUDY

Ryan Rumsey Cloud DevSecOps & Infrastructure Automation

Candidate: Ryan Rumsey

Specialization: DevSecOps Engineering | Cloud Infrastructure & Automation | CI/CD Modernization

Executive Summary

Ryan Rumsey is a software development and engineering management leader with extensive experience driving scalable cloud architecture, infrastructure as code (IaC), and secure automation across diverse enterprise environments. He specializes in CI/CD modernization, hybrid-cloud optimization, and leading cross-functional migration initiatives that enhance deployment efficiency and operational excellence.

1. The Business Challenge

Large-scale enterprise software delivery and cloud environments required modernization across infrastructure, deployment pipelines, and security frameworks. Organizations faced several critical challenges:

- ✚ **Operational Complexity:** Managing diverse hybrid-cloud environments across AWS, Azure, and Vultur with legacy manual configurations.
- ✚ **Pipeline Fragmentation:** Outdated CI/CD architectures (e.g., Bamboo) limiting development velocity, maintainability, and enterprise-wide standardization.
- ✚ **Scalability Constraints:** Difficulty managing microservices dynamically across varying Kubernetes cluster types and node models.
- ✚ **Security & Access Risks:** Over-privileged AWS IAM permissions and a lack of centralized identity provider (IdP) integration.
- ✚ **Compliance Hardening:** Addressing critical PRISMA remediation requirements and security threats within highly regulated Commercial and GovCloud environments.

2. Strategic Implementation

CI/CD Modernization & Pipeline Standardization

Ryan directed major cross-functional migration efforts from legacy platforms like Bamboo to GitHub Actions and Azure DevOps. By engineering modernized pipelines, he established standard practices across engineering teams, significantly improving deployment efficiency and code maintainability.

Hybrid-Cloud & Container Orchestration

He architected and maintained production-ready hybrid-cloud environments utilizing automated Infrastructure as Code (IaC) with Terraform, Terragrunt, and Bicep. Ryan successfully orchestrated high-density Linux containers within Kubernetes clusters via AWS EKS and Azure AKS, leveraging tools like Karpenter on managed EC2 and Fargate nodes to optimize resource allocation and cut compute overhead.

DevSecOps Governance & Compliance

Ryan spearheaded large-scale security initiatives, leading PRISMA remediation efforts directly with the Department of Defense (DoD). He audited complex AWS IAM configurations, streamlined enterprise

security posture by integrating Google SAML with AWS IAM Identity Center, and mentored engineering teams on operational excellence and reliability.

3. Technical Ecosystem

Ryan leveraged a highly sophisticated matrix of DevSecOps, cloud, and scripting technologies to drive automation:

Category	Systems Managed
Cloud Platforms	AWS (Commercial & GovCloud), Azure, GCP, Vultr
Infrastructure as Code (IaC)	Terraform, Terragrunt, Bicep, HashiCorp Packer
Container Orchestration	Kubernetes (EKS, AKS, GKE), AWS Fargate, Karpenter
CI/CD & Automation	GitHub Actions, Azure DevOps, Jenkins, GitLab, Bamboo
Programming/Scripting	Bash, Python, Groovy, C, C++, Rust, C#
Data & Core Infrastructure	Redis, PostgreSQL, Azure SQL, HashiCorp Vault, Artifactory

4. Results & Impact

-  **Accelerated Delivery:** Migrated legacy environments to GitHub Actions, eliminating delivery bottlenecks and unifying global pipeline standards.
-  **Enhanced Security Compliance:** Successfully completed critical PRISMA remediation tasks for DoD compliance ahead of schedule.
-  **Optimized Operational Efficiency:** Built automation scripts and workflows that saved hours of engineering time every single sprint across DevOps teams.
-  **Scalable Architecture:** Designed flexible Kubernetes and hybrid-cloud topologies that stabilized microservice availability for enterprise applications.

5. Core Expertise

-  Cloud Infrastructure Design & Scalability (AWS, Azure, GCP)
-  Infrastructure as Code (IaC) & Configuration Management
-  Enterprise CI/CD Pipeline Engineering & Migration
-  Containerization & Kubernetes Cluster Orchestration
-  DevSecOps Practices, IAM Federation & Security Remediation
-  Cross-Functional Technical Leadership & Agile Mentorship

This case study demonstrates a superior ability to protect client IP rights through operational excellence.