

# DANIEL ESPONDA

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## PROFESSIONAL SUMMARY

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Site Reliability Engineer with 10+ years building large-scale CI/CD platforms and Kubernetes infrastructure at companies like Datadog, VMware, Toyota, and Capital One. Specialized in developer productivity platforms processing 13M+ builds monthly, multi-region Kubernetes architectures serving 5,000+ nodes, and incident command for enterprise-wide outages. Expert in platform engineering that eliminates operational toil, reduces infrastructure costs by millions annually (70%+ cost reductions), and accelerates development velocity through intelligent automation. Core Incident Commander with expertise leading cross-functional response to business-critical incidents.

## TECHNICAL SKILLS

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**Platform Engineering:** Kubernetes, Docker, CI/CD Platforms, GitLab, Jenkins, Build Systems, Developer Productivity Tools

**Cloud & Infrastructure:** AWS (EC2, ECS, Lambda, S3, RDS), GCP, Multi-Region Architecture, Terraform, Infrastructure as Code

**Programming & Automation:** Python, Go, Java, Bash, GitOps (ArgoCD, Flux), Custom Tooling Development

**Distributed Systems:** Apache Kafka, gRPC, Event-Driven Architecture, Service Mesh (Istio, Envoy), Microservices

**Observability & SRE:** Prometheus, Grafana, Datadog, ELK Stack, SLI/SLO/SLA, Incident Management, Incident Response, On-Call Operations

**Database & Storage:** PostgreSQL, MongoDB, Cassandra, Gitaly, Large-Scale Git Repository Management

**Security & Compliance:** DevSecOps, Vault, Secrets Management, PCI, SOC 2, FedRAMP, HIPAA, Policy-as-Code

## CERTIFICATIONS

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Certified Kubernetes Application Developer (CKAD) - Linux Foundation, 2020 | AWS Certified Solutions Architect - Professional | AWS Certified Solutions Architect - Associate | AWS Certified Developer - Associate

## PROFESSIONAL EXPERIENCE

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### Datadog — Staff Software Engineer, CI Infrastructure

Remote, US

June 2025 - Present

- Engineer and evolve custom CI platform in Go/Python processing 13M+ builds/month—implementing advanced features including distributed task scheduling, smart caching layers, and real-time build analytics serving 1,000+ engineers across 100+ teams
- Architect and implement multi-tenancy framework in Go using namespace isolation, resource quotas, and pod security policies—enabling secure build isolation across 100+ teams while maintaining 99.95% platform availability and preventing resource contention
- Continuously optimize CI infrastructure costs through intelligent workload placement algorithms, spot instance orchestration, and resource right-sizing automation—maintaining \$7M annual savings while scaling platform to handle 30% growth in build volume
- Design and implement caching improvements and build optimization strategies reducing cold start times by 40%, including Docker layer optimization, artifact reuse across pipelines, and predictive cache warming based on historical build patterns
- Lead technical design reviews for 15+ RFCs covering CI infrastructure improvements, platform evolution,

and architectural decisions—providing code-level feedback and prototyping proof-of-concepts to validate feasibility before team implementation

- Drive consensus across 30+ engineering teams on CI strategies, monorepo architecture, and repository patterns through cross-team collaboration
- Serve as Core Incident Commander for enterprise-wide severe outages (since 2023), debugging production issues across distributed systems, implementing automated remediation, and leading post-incident improvements reducing MTTR by 25%

## Datadog — Senior Software Engineer, CI Infrastructure

*Remote, US*

*August 2022 - June 2025*

- Built and maintained CI/CD infrastructure processing 13M builds/month, achieving 99.95%+ uptime SLA through automated failover and graceful degradation strategies
- Reduced annual CI infrastructure costs from \$10M to \$3M (70% reduction, \$7M savings) through intelligent node selection, resource optimization, and automated scaling strategies
- Designed and built custom enterprise CI system with task engine framework enabling reusable pipelines and smart dependency detection—foundation for company-wide standard
- Reduced pipeline execution time from 70 minutes to 7-12 minutes (up to 90% faster) through persistent runner framework, Docker image warm caching, and build impact analysis integration
- Architected build impact analysis service analyzing code changes to determine affected dependencies—eliminating unnecessary builds and reducing infrastructure waste by 60%+
- Optimized Gitaly cluster configuration to handle 10,000+ commits/day across 20GB+ monorepo, reducing Git clone times from 15+ minutes to <2 minutes through custom checkout strategies
- Engineered persistent runner framework with intelligent caching for extreme-scale Git operations, solving checkout performance challenges for massive monorepo
- Implemented Vertical Pod Autoscaler (VPA) for automatic resource sizing across CI workloads, eliminating manual tuning overhead and optimizing cluster utilization
- Became Core Incident Commander in 2023, training IC team members on incident response playbooks, simulation exercises, and best practices for high-pressure incident management

## VMware — Staff Site Reliability Engineer

*Remote, TX*

*November 2020 - August 2022*

- Provided technical leadership for VMware's largest SaaS Kubernetes platform with 5,000+ nodes across 100+ clusters in AWS and Azure, achieving 99.99%+ platform uptime
- Led architecture and development of custom Kubernetes operators in Go to automate cluster provisioning, upgrades, and configuration drift detection—reducing manual operations from 40 hours/week to <12 hours/week
- Designed and deployed global service mesh using Istio across multi-cloud environments, implementing zero-trust networking with mTLS, rate limiting, and circuit breaking for 300+ microservices
- Owned delivery of critical platform services including API Gateway, Vault secrets management, and Prometheus monitoring stack—serving as shared infrastructure for 200+ engineering teams
- Maintained platform compliance with PCI, HIPAA, and FedRAMP audits through automated policy enforcement using OPA, continuous security scanning, and infrastructure-as-code validation
- Built multi-region disaster recovery architecture with automated failover, achieving RPO <15 minutes and RTO <30 minutes for Tier 1 services

## **Toyota Connected — Senior Site Reliability Engineer**

*Plano, TX*

*October 2019 - November 2020*

- Designed enterprise-wide Kubernetes platform on AWS serving 80+ development teams, improving system availability from 99.5% to 99.9% while reducing compute costs by 40%
- Established comprehensive software reliability engineering standards including SLI/SLO definitions, error budgets, and incident management processes for 50+ production services
- Built self-service developer platform using Python and Flask—reducing provisioning time from 3 days to 15 minutes and eliminating ticket-based workflows
- Deployed global ELK cluster with Kafka integration processing 3TB/day of log data, achieving 80% cost reduction compared to commercial alternatives
- Implemented event-driven infrastructure automation using Kafka and Lambda to orchestrate configuration changes and deployments across distributed systems
- Automated AWS account policy enforcement through policy-as-code using Cloud Custodian across 40+ AWS accounts
- Led incident response for production outages, coordinating cross-team troubleshooting and implementing automated remediation to reduce MTTR

## **Capital One — Site Reliability Engineer Manager**

*Plano, TX*

*February 2016 - October 2019*

- Managed architecture and site reliability practice for enterprise-wide Kubernetes infrastructure spanning AWS and GCP, supporting 500+ microservices as technical lead with 60% hands-on engineering
- Led cloud migration initiative for 100+ microservices from on-premise data centers to AWS and Kubernetes, completing migration 3 months ahead of schedule
- Designed multi-cloud Kubernetes architecture with unified control plane and cross-cloud service discovery, reducing vendor lock-in risk and enabling cost-optimized workload placement
- Reduced incident MTTR from 2.1 hours to 52 minutes through automated runbook execution, enhanced observability, and streamlined incident response workflows
- Provided Kubernetes coaching and cloud expertise to engineering teams, conducting 50+ training sessions and architectural reviews during enterprise cloud transformation
- Implemented comprehensive SLI/SLO frameworks and automated incident detection for business-critical services, establishing reliability culture across development organizations

## **Pariveda Solutions — Senior Software Engineer**

*Plano, TX*

*August 2014 - February 2016*

- Architected automated hybrid cloud solution using AWS, Chef, and Jenkins, enabling rapid environment provisioning for enterprise clients
- Developed cloud migration strategy for transitioning legacy applications from physical servers to hybrid cloud infrastructure
- Built RESTful API services and back-end systems for cross-platform mobile applications using Java and Spring Framework

## **EDUCATION**

**University of Texas at Dallas — Richardson, TX**

Bachelor of Science in Computer Science | Cum Laude | GPA: 3.92 | Dean's List

*Graduated 2013*

## OPEN SOURCE & COMMUNITY

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**Kubernetes 1.21 Bug Triage** — CNCF Release Team Member (January - April 2021): Contributed to Kubernetes v1.21 release as bug triage team member, reviewing and categorizing issues, coordinating with sig-leads, and ensuring release quality

**Technical Projects & Contributions** — Portfolio: [github.com/desponda](https://github.com/desponda) - Open source contributions demonstrating expertise in infrastructure automation, CI/CD systems, and platform engineering