
RICARDO HERRERA

Profile

Infrastructure software engineer with 8+ years of experience designing, building, and operating large-scale distributed systems. Promoter of SRE concepts and principles to increase system reliability. Proven expertise in cloud infrastructure, automation, and developer tooling that directly improves engineering velocity. Strong technical depth across systems programming, infrastructure-as-code, and operational excellence. Passionate about solving complex reliability and scalability challenges. Currently invested in enhancing productivity leveraging LLMs and AI tooling. Proficient in Go as programming language of choice.

Experience

Senior Infrastructure Software Engineer; Watchtower; Patterson, NY — 2018-Present

Architected and implemented Kubernetes platform running 10 clusters, supporting internal teams and dozens of services operated completely automated via IaC.

Implemented deployment of GPU enabled Kubernetes nodes to facilitate R&D efforts of supporting AI workloads such as GenAI inference and training as well as providing developers GPU enabled notebooks.

Architected and deployed observability stack (Prometheus & Grafana) enabling real-time SLI monitoring of virtualized environment of 2200+ VMs across 3 regions (AMER, APAC, EMEA) with long-term capacity metric collection using Thanos. Introduced SLOs for quantifying availability allowing for data-driven decisions on infrastructure.

Built comprehensive automation managing infrastructure, golden image creation and Linux OS configuration across 3 global regions, increasing engineer velocity by automating deployments and operations. Reduced host provisioning from 3 days to 3 hours reducing costly, error-prone manual operations.

Contributed to open-source Kubernetes ingress controller ([zalando/skipper](https://github.com/zalando/skipper)), adding features to handle our internal needs for certificate management.

Manage entire virtualization platform stack from hardware config, storage network management, storage array administration and compute cluster ownership, implementing SRE principles and DevOps practices for toil reduction and increased reliability.

DevOps Consultant; G&G Outfitters; Remote — 2021-Present

Increased the reliability of production infrastructure by automating deploy and maintenance of Kubernetes and AWS infrastructure and increasing observability. Increased availability from 95% to 99.9% within the first quarter.

Coordinated migration from colocated, manual installation of Kubernetes to AWS running on EKS for production environment reducing overall manual toil by 90% while also reducing costs by leveraging autoscaling clusters with Karpenter and AWS spot instances.

Refactored CI/CD pipelines from Jenkins to using GitHub Actions for deployment of services enabling development teams self-service operations.

Deployed a comprehensive observability stack using Prometheus & Grafana increasing service owners' ability to respond to issues and reducing MTTR. Improved reliability by exporting custom metrics for core services and designing custom dashboards for internal services.

DevOps Engineer; Olo; New York, NY — 2016-2018

Refactored "on-demand environments" used by Dev & QA teams an isolated AWS environment, entirely automated in IaC, improving security posture and operational overhead.

Managed production AWS infrastructure for large scale distributed online ordering system supporting clients such as Sweetgreen and Chipotle.

System Administrator; WSOL; Aurora, IL — 2014-2016

Managed VMware environment supporting production and development infrastructure running client's main websites and CMS solutions.

Introduced cloud infrastructure and initiated migration to AWS for production systems, reducing operational overhead of running colocated infrastructure.

Education

Universidad de Cuautitlan Izcalli, Mexico, Mexico

Bachelor's Computer Science - 2011

Cisco CCNA**Skills**

Cloud & Infrastructure: AWS, Kubernetes, EKS, VMware

Programming: Go, Typescript, Bash

Databases: PostgreSQL

Observability: Prometheus, Grafana

DevOps: GitLab CI/CD, GitHub Actions, Terraform, Ansible
