

Staff Site Reliability & Platform Engineer with 15+ years from physical data centers through cloud-native delivery. I started as a high energy physicist, launching a cosmic ray detector into space, then naturally crewed film sets and repaired computers before falling into enterprise networking. A decade building data centers for a global SaaS led to the jump to cloud, quite literally, in Aotearoa. Weta Digital took me there to lead an AWS cloud-rendering transition; back stateside I helped Laika start its GitOps journey before a colleague pulled me to Magic Leap to build self-service Infrastructure-as-Code on Kubernetes (GKE). Most recently I supported Google's Cloud Infrastructure for Android XR. We'll see where we go from here.

AREAS OF EXPERTISE

Distributed Systems Architecture

Infrastructure as Code & Platform Eng.

Multi-Cloud Platform Infrastructure

Enterprise Observability & Telemetry

Cloud FinOps & Optimization

Technical Leadership & Mentorship

PROFESSIONAL EXPERIENCE

MAGIC LEAP

SUNNYVALE, CA (REMOTE)

SOFTWARE ENGINEER - ON ASSIGNMENT AT GOOGLE

MAR 2025 - OCT 2026

- :: Owned the data pipeline platform for Android XR and Galaxy XR, serving as the primary technical point of contact for the engagement with Google's Cloud Infrastructure and Developer Services.
- :: Delivered a zero-downtime migration of the pipeline platform's own multi-petabyte data storage while live and serving throughout.
- :: Extended the published Python client library for the pipeline's storage backend and wrote a CLI admin tool for the platform's Spanner operations (creating, renaming, and retiring pipelines), including a multi-million-row database update for that migration.
- :: Reduced technical debt, improved stability, and cut day-to-day support overhead on the Android XR device-performance-metrics platform by refactoring and deprecating multiple components, freeing the team to collaborate with users on new features.
- :: Gathered customer requirements and pain points, prioritized them, and translated them into actionable recommendations that became the proposed next-generation platform design with hierarchical abstraction, templating, improved robustness, and better error reporting; it was ranked among the best proposals from senior software engineers at Google.
- :: Served in Google's on-call rotation and handled user support, monitoring live jobs and services and partnering with users to scale and enhance pipelines for high availability.

STAFF SITE RELIABILITY ENGINEER - DEVOPS & INFRASTRUCTURE

FEB 2023 - MAR 2025

- :: Owned the cloud platform and developer tooling (GitLab, Vault, Harbor, Cloudflare, and AWS/GCP onboarding) as technical lead, serving 700+ software engineers, with secondary ownership of ArgoCD and the Prometheus/Grafana observability stack.
- :: Led the Infrastructure-as-Code migration to Terraform, converting 6 of 7 systems from an in-house Terraform wrapper; authored Terraform modules, publishing pipelines, and pipeline templates to enable the conversion.
- :: Architected a two-tier, high-availability HashiCorp Vault service on Google Kubernetes Engine (GKE), integrated with GitLab, ArgoCD, and GCP/AWS via Pub/Sub sync, with grant-based secret access for 80+ teams and certificate/key management.
- :: Delivered self-serve, Terraform-backed GitLab management with dynamic CI/CD job creation; custom tooling enabled a zero-downtime conversion from a Terraform-only codebase and cut time to deployment by 95%.
- :: Established program-management scaffolding adopted across SRE sub-teams, managing initiatives and deliverables for two years.

SR. SITE RELIABILITY ENGINEER

NOV 2021 - FEB 2023

- :: Reduced cloud spend by \$1.5M immediately and \$300K+ annually through cost controls, fleet right-sizing, and aggressive audits.
- :: Migrated the GitHub codebase and users to GitLab, growing from 250 to 700+ users and doubling project volume while scaling infrastructure through a concurrent configuration-as-code rewrite.
- :: Converted the AI/ML cloud fleet to DevOps deployment with built-in cost controls and monitoring, saving \$200k+ annually.
- :: Expanded a pipeline-backed documentation service to full coverage of 35+ internal services and tooling, keeping documentation in the repository beside the code so it updated when the code did and providing on-call a single archive to search.

LAIKA

HILLSBORO, OR

SR. SYSTEMS ENGINEER

MAY 2021 - OCT 2021

- :: Led a Microsoft O365 migration of 700+ mailboxes (email, calendaring, and core security posture), extending the rollout to Intune and SaaS integration with on-premises resources.
- :: Drove security and Windows-infrastructure organizational change, modernizing tooling to a current, supported codebase.
- :: Established the foundation for Infrastructure-as-Code and CI/CD, replacing click-ops and one-off tooling.
- :: Recruited to lead active and future projects; upskilled, trained, and mentored a team of 7+ junior engineers and sysadmins.

WETA DIGITAL

WELLINGTON, NZ

SR. DEVOPS ENGINEER - CLOUD INFRASTRUCTURE

JAN 2021 - APR 2021

- :: Designed a multi-regional, scalable, and highly-available network backbone for cloud rendering using custom Terraform modules and Terragrunt, deployed across 2 regions and architected to scale to 10+.
- :: Built AWS and Azure cloud infrastructure via GitOps-driven Terraform workflows (deployed production on AWS).
- :: Founding member of a 3-person cross-functional team unifying infrastructure and pipeline engineering and deploying cloud services for 100+ engineers.
- :: Lead developer for 15+ Infrastructure-as-Code modules and the established architecture.

SR. PLATFORM SYSTEMS ENGINEER

FEB 2018 - APR 2021

- :: Operated the studio's VMware virtualization, Kubernetes clusters, Microsoft O365, VDI, and the observability stack.
- :: Automated Microsoft O365, VMware, and Windows operations with custom PowerShell modules still in use 5+ years later.
- :: Deployed Microsoft O365 for 2000+ mailboxes in a non-internet-facing environment with strict segregation and tenancy.
- :: Authored the RFP and executed a VMware hardware refresh and greenfield vCenter deployment with a zero-downtime migration.

EPIC HOSTING

VERONA, WI

DATA CENTER ARCHITECT

MAY 2015 - JAN 2018

- :: Managed hardware deployments across 4+ core and disaster-recovery sites (3 US, 1 UK), covering Cisco and Palo Alto firewalls, network switches, Cisco UCS, and storage, and delivered end-to-end connectivity (BGP) for customers on-site at their premises and colocation facilities.
- :: Lead UCS engineer for 17 domains and 800+ servers; the deployment became an internal case study for scaling UCS architecture.
- :: Project manager for all DC operations projects across Epic and Epic Hosting over nearly five years, leading implementation and installation for all DC spaces.
- :: Principal design engineer for a 2.4 MW secondary site (renovation, technology and infrastructure installation, and a 2x expansion of critical floor space, cutting cost per cabinet over 11%).
- :: Designed HVAC expansion reducing cooling footprint 50% and raising compute capacity 50%, with ROI within two months.

EPIC

VERONA, WI

LEAD DATA CENTER AND NETWORK OPERATIONS ENGINEER

JUL 2009 - MAY 2015

- :: Progressed from Systems Engineer to Network Engineer, to finally lead data center and network operations.
- :: Led capacity planning for future data center operations, establishing policies, procedures, and practices still in use and duplicated across 4 sites exceeding 5 MW of capacity.
- :: Led and managed hardware deployments, power, cooling, and expansion coordination across two data center sites.
- :: One of three technology personnel in the physical design and layout of a greenfield 3 MW facility with modular build-out, leading power-scale decisions.
- :: Aided design and execution of an expansion in a pre-existing data center, including prototyping cabinets, network switches, PDUs, and codifying an asymmetrical cable-management system; all components were used in the greenfield secondary site.
- :: Established the first formal data center operations team, training and managing 3 technicians, one of whom became my replacement when I moved to Epic Hosting.

TECHNICAL SKILLS

Languages: Python, Go, Bash, PowerShell, HCL (Terraform / Terragrunt)

Cloud Platforms: Google Cloud Platform (GKE, IAM, Pub/Sub), AWS, Azure

Infrastructure as Code & GitOps: Terraform, Terragrunt, ArgoCD, GitLab CI/CD

Containers & Orchestration: Kubernetes (GKE), Docker, Harbor, Kustomize

Networking: TCP/IP, DNS/DHCP, BGP, load balancing, Cisco & Palo Alto firewalls

Virtualization & Compute: VMware vSphere / vCenter, Cisco UCS

Security & Identity: HashiCorp Vault, Okta, IAM, certificate & key management

Observability: Prometheus, Grafana, Sensus

EDUCATION

University of Minnesota - Twin Cities

Minneapolis, Minnesota

B.S. Physics, B.S. Astrophysics
aka Particle Smasher and Rocket Scientist