Jesse McCann

Staff Infrastructure Engineer - Platform, Cloud & AI Infrastructure

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PROFESSIONAL SUMMARY

Fifteen years across the infrastructure stack: highly available enterprise systems, a rocket company's mission systems, a national-security R&D lab, a pre-IPO hyperscale platform, and now greenfield AI infrastructure. The throughline never changes - turn fragile, manual operations into one-command automation, and help the people around me ship reliably. Multi-cloud (AWS, GCP, Azure), Kubernetes, Terraform / OpenTofu, and enterprise AI platforms; FedRAMP Moderate and NIST 800-171; mentor to 10+ engineers.

TECHNICAL SKILLS

Cloud & Infrastructure: AWS, GCP, Azure, Kubernetes (GKE), Terraform / OpenTofu, Ansible, Docker, Linux

Languages: Python, Go, Bash, PowerShell, SQL

Identity & Access: Microsoft Entra ID, Workforce Identity Federation, OIDC, SAML, least-privilege IAM, SCIM

AI Platform & Infrastructure: Gemini Enterprise (Agentspace), Vertex AI, GitHub Copilot, multi-agent orchestration, MCP / agentic tooling

Automation & Integration: Workato, Workday, CI/CD (GitHub Actions, Cloud Build, GitLab CI), mise, uvx, Git

Observability & Data: OpenSearch, Apache Kafka, ELK Stack, PRTG

Security & Compliance: FedRAMP (Moderate), NIST 800-171, Zero Trust, vulnerability management, continuous monitoring

PROFESSIONAL EXPERIENCE

Site Reliability Engineer, DAS Cloud

DTEX Systems - Greater Philadelphia | May 2024 - Present

Greenfield platform work on multi-tenant DAS Cloud - design, process, and mentoring - working alongside customers and teammates to take new deployments from proof-of-concept to production.

- Partnered with customers and across SRE, Service Desk, and engineering teams to onboard new clients - carrying their environments from first proof-of-concept to steady-state production.
- Built a multi-cloud Kubernetes deployment platform (Terraform / OpenTofu) that cut new-customer environment provisioning from days of manual work to one command and ~1 hour, and reduced monthly cloud spend 45% through Cloud Custodian policy automation.
- Designed an internal multi-agent AI platform (Vertex AI + Copilot) with a durable issue graph for long-running agent work, now the team's blueprint for large-scale legacy refactoring.
- Defined Terraform style and module standards, introduced a facade-based infrastructure pattern, split the SRE monorepo into independently managed repositories, and shipped the DAS 7.3 Terraform and Ansible release.
- Closed critical FedRAMP controls (SSH hardening, key rotation, SAML protection for Nessus, scanner evidence, Salt/Zabbix remediation, GitLab upgrades) and expanded production IAM controls across RDS, CloudWatch, logging, Lambda, and snapshots.
- Evaluated and delivered multiple OpenSearch architectures (AWS, Aiven, Canonical Charmed with Juju), adopting Cluster Insights, UltraWarm/cold storage, and in-place DAS upgrades; completed GCP commercial productionization.
- Improved detection and recovery via DAS CloudWatch alerting, CloudWatch-to-Slack integration, a service-status page, RDS snapshots, immutable backups, and multi-AZ conversion; led resolution of

customer-impacting incidents involving Elasticsearch health, storage, certificate expiry, and message-queue pressure.

Senior Systems Infrastructure Engineer, Corporate IT (Consultant)

BlackLine - Greater Philadelphia | 2025 - Present

A return to BlackLine to modernize at the AI frontier: Vertex AI and Gemini Enterprise at scale, and modernizing code, process, people, and workflow.

- Launched BlackLine's Gemini Enterprise (Agentspace) platform: stood up Dev, Test, and Prod environments and data connectors (SharePoint, OneDrive, Outlook, Teams, Jira, Confluence), moved apps from SAML to OIDC, and restricted production data access.
- Designed and delivered a standalone, Terraform-managed GCP tenant for AI and agent workloads - org and folder structure, least-privilege IAM for citizen developers, network and tenant isolation, and a reusable Terraform module for business-unit agent projects.
- Implemented Workforce Identity Federation between Microsoft Entra ID and GCP; added a vaulted break-glass account and dedicated elevated accounts, and removed over-privileged ("god-mode") bindings and legacy admin tiers.
- Established infrastructure-as-code and release discipline (Terraform state migration, centralized configuration, semantic versioning, Conventional Commits, release pipelines) and built self-service AI Playgrounds with automatic TTL cleanup and a v1.0.0 library of reusable AI skills.
- Automated the employee lifecycle (PowerShell onboarding/offboarding, scheduled Workday export, daily reports, PRTG monitoring) and delivered Workato SSO/SCIM and a Confluence OAuth connector.

Sr. Cloud Systems Engineer / Technical Lead

Confluent - Mountain View, CA | Nov 2020 - Apr 2024

Hyperscale and real autonomy: Go and Kubernetes at the company behind enterprise Apache Kafka, through pre-IPO, IPO, and post-IPO growth.

- Built and operated Go and Python infrastructure services on GCP Cloud Run, with CI/CD from GitHub through Cloud Build; deployed GKE with Terraform and custom Go cluster-management tooling.
- Led a multi-quarter Zero Trust network rollout (Palo Alto) for a global workforce, writing the allow-list automation so the cutover caused zero work interruptions.
- Killed a proposed GitHub EMU migration by building proof-of-concept tooling to quantify its blast radius; presented findings to InfoSec, TPM, and Engineering leadership to steer the decision to GitHub Enterprise. Mentored 10 engineers across the infrastructure teams.

Staff System Engineer

BlackLine - Woodland Hills, CA | Feb 2018 - Nov 2020

First move into cloud at a large, audited company - GCP, Python, and Terraform, where scale and auditability were the point. Migrated 4 Nutanix clusters, 30 servers, and 10 applications to GCP; ran the Atlassian stack (3,000 users) in high availability and automated HRIS, deployment, and patching, saving 10-15 hours per week.

Earlier Roles

Server Support Engineer, Publix Super Markets (2007-2012) - first tech job: cut my teeth on scaled, redundant enterprise systems where uptime was the whole story. **Senior Systems Engineer, Virgin Galactic** (2012-2014) - scrappy, fast-moving startup; multidisciplinary work across rockets, simulators, and systems, where the cost of a crash is real. **Senior System Engineer to IT Manager, Applied Minds** (2014-2018) - an R&D playground: AI, cybersecurity, national security, systems engineering, and management; led NIST 800-171 compliance and a 99.99%-uptime AWS migration.

EDUCATION, CERTIFICATIONS & PUBLICATIONS

AWS Certified Solutions Architect - Associate | Technical Mentor, Princeton University