

Ian Douglas

Staff Platform Engineer | Infrastructure Architect

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PROFESSIONAL SUMMARY

Platform architect with 12+ years delivering Internal Developer Platforms and infrastructure-as-product across AWS, Azure, and GCP. Rare expertise in self-managed Kubernetes, bare-metal provisioning, and enterprise secrets management. Delivers hardened, scalable platforms that unlock developer velocity at enterprise scale.

TECHNICAL PROFICIENCIES

Platform & Systems: Self-Managed Kubernetes (Control Plane, etcd, Bare-Metal), Managed K8s (EKS, AKS, GKE), Software-Defined Infrastructure, Linux Internals, Hybrid/Multi-Cloud (AWS, Azure, GCP)

Software & Automation: Go (Golang), Python (Pandas, Boto3), API-Driven Automation, Terraform at scale, GitOps (ArgoCD, Flux CD), CI/CD (GitHub Actions, GitLab Pipelines), Bash, PowerShell

Security & Governance: HashiCorp Vault (PKI), Policy-as-Code (OPA), Zero Trust Architecture, Identity Management (Azure Entra ID, AWS IAM/PIM), Compliance Hardening

Observability & Data: Prometheus, Grafana, Distributed Logging (Fluentd, Elasticsearch), PostgreSQL, MSSQL, High-Throughput Data Pipelines

PROFESSIONAL EXPERIENCE

Kings Mountain Security | Palo Alto, CA (Remote)

Staff Engineer & Security Architect | 01/2025 – Present

- **Zero Trust Architecture:** Co-founded a zero-trust specialized security consultancy delivering 'Zero Trust Capability Packages' via tactical, high-impact engagements.
- **Compliance Automation:** Developing progressive 'Security-as-Code' modules to automate DoD Zero Trust compliance within modern infrastructure lifecycles.
- **Platform Engineering:** Engineering high-integrity, containerized CI/CD pipelines to ensure secure, repeatable deployments

FlowDelta Trading | Boulder, CO (Remote)

Senior Software Engineer (Python/Data) | 01/2025 – Present

- **Platform as Product:** Developed a proprietary, multi-horizon analysis platform for a boutique trading desk, enabling rapid backtesting and validation of medium-frequency algorithms.
- **Data-Intensive Systems:** Engineered a vectorized Monte Carlo simulation engine to perform multi-dimensional parameter grid sweeps, optimizing data throughput for large-scale strategy stress-testing.

ZagTech | San Jose, CA (Remote)

Senior Platform Engineer | 04/2024 – 12/2024

- **Platform Engineering:** Architected modular Terraform libraries for AKS and VMSS, establishing a "Golden Path" for compliant, self-service infrastructure provisioning.
- **Developer Experience (DevEx):** Built Go and Python tooling to automate GitOps workflows, increasing deployment velocity while reducing change failure rates.
- **Platform as Product:** Engineered a proprietary Kubernetes platform commercialized across multiple enterprise clients; codebase served as a primary value driver for the firm's subsequent acquisition.

Invitae Biosciences | San Francisco, CA (Remote)

Senior Platform Engineer | 07/2023 – 04/2024

- **Internal Developer Platform (IDP):** Engineered a self-service IDP for genetics researchers and software engineers, abstracting complex compute requirements for petabyte-scale genomics workloads as part of a five person team.
- **Reliability Engineering:** Executed zero-downtime Kubernetes upgrades and complex stateful workload migrations, maintaining high availability for critical research data.
- **Secrets Management Architecture:** Designed an enterprise-grade secrets management solution utilizing **SOPS**, **AWS KMS**, and Shamir Sharding to enforce "least privilege" access programmatically.
- **Policy-as-Code:** Developed custom auditing tools to enforce CIS benchmarks and Day Zero hardening across all cluster deployments.

Pearson | London, UK (Remote)

Senior Cloud Platforms Engineer | 09/2019 – 08/2021

- **Platform-as-Product:** Developed and operated Internal Developer Platforms (IDP) via self-hosted Kubernetes in continuous delivery (CI/CD) GitOps model.
- **Cloud-Native Engineering:** Engineered a **self-managed Kubernetes ecosystem** on EC2, developing custom Go-based operators to abstract and orchestrate AWS services.
- **Observability Pipeline:** Developed a scalable, distributed log aggregation system using Fluentd, Python, and AWS Lambda, processing massive log volumes into Elasticsearch for real-time analysis.

Stanford University | Palo Alto, CA

DevOps Engineer & Security Architect | 12/2015 – 09/2019

- **Identity Modernization:** Partnered with Infrastructure teams to re-architect legacy Identity services (LDAP/Kerberos) into containerized, cloud-native workloads running on self-hosted Kubernetes.
- **Cloud-Native Directory:** Authored the reference implementation for a cloud-resident Active Directory system leveraging IPv6 and IPsec mesh networking for secure, boundary-less access.
- **Secrets Infrastructure:** Managed multi-tenant **HashiCorp Vault** clusters to provide automated PKI, authentication proxies, and encrypted storage for university-wide applications, as part of a three person team.

Marvel Heroes (Gazillion Entertainment) | Foster City, CA

DevOps Engineer | 06/2014 – 12/2015

- **High-Concurrency Scaling:** Scaled infrastructure for a flagship MMO with 40k+ DAU; developed cluster ops tools in PowerShell and SQL Server Management Objects (SMO) to automate database operations and reduce service drain times by 93%
- **Production Velocity:** Supported high-velocity weekly production releases while maintaining system reliability.

Early Career

Two Sigma | New York, NY

Systems Engineer | 05/2012 – 06/2014

- **Fleet Management:** Automated bare-metal provisioning and configuration management for high-performance servers and secure endpoints at a top-three quantitative hedge fund.
- **Lifecycle Automation:** Orchestrated deployment and lifecycle operations of 1,000+ secure workstations.

Columbia University | New York, NY

Systems Engineer | 06/2010 – 05/2012

- **Infrastructure Operations:** Ran databases, ESX, storage, and VM infrastructure supporting Columbia's 22 libraries.

EDUCATION

University of Denver | Denver, CO

Bachelor of Arts (BA), Double Major: Mathematics & Philosophy

- **Mathematics:** Completed full BS curriculum including graduate-level coursework.
- **Philosophy:** Specialized in Formal Logic and Epistemology.