

IAN DOUGLAS

SECURE PLATFORM ENGINEERING | EVERYTHING-AS-CODE

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Delivering scalable, secure solutions that transform business strategy into future forward architecture-as-code, automated with just enough human in the loop.

EXPERIENCE

Kings Mountain Security

Security Architect & Staff Engineer | January 2025 - Present

- Co-founded a zero-trust specialized security consultancy based in Palo Alto
- Devised core business strategy to deliver 'Zero Trust Capability Packages' to SMBs via tactical engagements within weekly timeframes and quarterly budgets
- Developed a suite of progressive Security-as-Code modules to automate DoD Zero Trust compliance
- Implemented container-based CI/CD pipelines for Astro-based web site

FlowDelta Trading

Software Engineer | March 2025 - Present

- Developed a multi-horizon, medium-frequency (MFT) strategy analysis platform using Python, Pandas, and VectorBT Pro
- Validated strategy robustness by generating probabilistic distributions of performance through Monte Carlo simulations on synthetic time-series data that models volatility-clustering
- Collaborated with traders to transform trading concepts into testable, automated trading systems

ZagTech

Senior Platform Engineer | Apr 2024 - Dec 2024

- **Acquisition Transition:** Facilitated architectural handover during the company's acquisition by a national MSP; declined retention offer to launch Kings Mountain Security
- Architected and authored IaC code to deliver Azure Kubernetes (AKS) and VM Scale Sets (VMSS) as modular service stacks
- Standardized the Architecture Team's delivery model, focusing on Azure IaC and scalable Kubernetes patterns
- Increased deployment velocity and reduced risk by implementing GitOps workflows and custom tooling in Go, Python, and Terraform

Invitae Biosciences

Senior Platform Engineer | Jul 2023 - Apr 2024

- **Corporate Restructuring:** Tenure concluded due to corporate insolvency following adverse IP litigation regarding core technology
- Engineered platform services for genetics researchers and medical scientists, specializing in Kubernetes, Flux CD, and container builds
- Executed zero-downtime Kubernetes cluster upgrades using Jenkins pipelines, Terraform, Terragrunt, and Flux
- Designed and deployed a secrets-management solution using SOPS, AWS KMS, and Shamir Sharding
- Developed Python CLI tooling to audit Pod Security configurations and mechanize the migration from PSPs

Pearson

Senior Cloud Platforms Engineer | Sep 2019 - Aug 2021

- Operated the Internal Developer Platform (IDP), managing 'self-hosted' Kubernetes clusters on AWS EC2 in a 'Platform-as-Product' GitOps model
- Extended the platform codebase using Terraform, Terragrunt, Golang, Helm, Ansible, Python, and Bash
- Engineered a scalable log aggregation solution leveraging Fluentd, Python, AWS Lambda, and Elasticsearch
- Redesigned the EKS cluster lifecycle module to modernize the underlying container orchestration strategy

Stanford University

DevOps Engineer | Security Architect | Dec 2015 - Sep 2019

Cloud Engineering (2017-2019)

- Recruited to Stanford's Cloud Engineering team to help accelerate a cloud transformation strategy for core infrastructure
- Collaborated with core engineering and security teams to containerize the Identity & Access Management (IAM) stack into microservices running on self-hosted Kubernetes clusters
- Managed Vault clusters as part of a three-person team, providing multi-tenant secrets storage, PKI, and authentication proxies

Core Infrastructure (2015-2017)

- Developed reference implementation of isolated cloud-resident Active Directory mesh, enabling secure domain services over IPSEC and IPv6; this work led to recruitment to Cloud team
- Coordinated a university-wide infrastructure hardening initiative, aligning technical implementers across diverse IT units to secure critical assets
- Partnered with security colleagues to deploy and tune machine-learning-based event anomaly and threat detection systems

Marvel Heroes

DevOps Engineer | Jun 2014 - Dec 2015

- Engineered DevOps solutions for the flagship game of a \$250M startup, supporting 40k+ Daily Active Users (DAU)
- Developed a PowerShell / SQL module to mechanize database schema changes, critical to weekly production releases
- Rewrote Cluster operations tools from Python to PowerShell, reducing cluster drain times from 6 minutes to 25 seconds
- Authored Puppet modules for the automated provisioning of a 16-node Elasticsearch cluster

Two Sigma

Systems Engineer | May 2012 - Jun 2014

- Implemented a machine deployment service spanning 3 datacenters and multiple distribution points for a Top-3 quantitative hedge fund
- Automated the image build, deployment, and configuration of high-performance bare-metal servers and database systems

Columbia University

Systems Engineer | Jun 2010 - May 2012

- Administered ESX, Storage, VMs, and bare metal infrastructure supporting Columbia's 22-site library system

SKILLS

Cloud: Azure | AWS | GCP | VMware | VM Scale Sets | BareMetal **Languages:** Go | Python | Bash | PowerShell | SQL | Wolfram | **Orchestration:** GKE | EKS | AKS | Self-Hosted Kubernetes | Docker | **IaC:** Terraform | Terragrunt | Ansible | Puppet | Packer | Helm | **CI/CD:** Jenkins | GitLab | GitHub | Argo CD | Flux CD | GitOps **Security:** HashiCorp Vault | Vault PKI | SOPS | Azure/AWS KMS | Azure/AWS IAM | Zero Trust | Kerberos | Active Directory | Entra ID **Database:** PostgreSQL | MongoDB | CosmosDB | MS SQL | Elasticsearch

EDUCATION

The University of Denver

- **Bachelor's Degree:** Mathematics & Philosophy, Double Major