Alex Wicks

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About Me

Technical leader bridging infrastructure and software engineering. My background spans bare-metal to cloud, with particular expertise in Kubernetes, observability, CI/CD and infrastructure as code. I'm equally comfortable architecting a PKI solution, writing a Kubernetes operator, or optimizing network performance – whatever solves the problem at hand. I strive to empower developers and make infrastructure invisible to users. Outside of work, I enjoy photography, cars, cooking and travelling.

Skills

Containerisation & Orchestration
Kubernetes, etcd, containerd, Docker

Cloud & Infrastructure as Code
Azure, AWS, Terraform

Languages
Go, Rust, Python, Bash

Observability
OpenTelemetry, Prometheus, Thanos, Loki, Vector

CI/CD & GitOps
GitLab CI, ArgoCD, GitOps

Infrastructure
Linux, Windows, VMware, Networking, PKI, Storage

Certifications

Red Hat Certified System Administrator (RHCSA) ● Azure AZ-700: Designing and Implementing Azure Networking Solutions

Experience

Maven Securities

Platform Engineer
Jun. 2024 - Present

Supporting ~100 development engineers with platform infrastructure and traders with analysis environments (JupyterHub, Coder). Migrated Kubernetes networking from MetalLB to Cilium BGP, implementing custom Prometheus exporter. Implemented an **automated PKI solution** using ACME and step-ca. Migrated large **Kafka** clusters into Kubernetes using Strimzi. Maintained a **Kubernetes operator** to configure OIDC clients in Keycloak, including a rewrite from Go to Rust, and Envoy Gateway integration for app-agnostic authentication. Deployed an **on-premises data warehouse** platform leveraging VAST S3, Hive metastore, Lakekeeper and Trino, working with data team to migrate from AWS Athena – saving **$200k+/yr** in cloud costs.

Speechmatics

Sr. Site Reliability Engineer
Jan. 2023 - Apr. 2024

Owner of all on-premises resources (networking, VMware, SAN, etc). Built **high-performance bare-metal GPU clusters** (NVidia H100 & A100), including updating our fork of Sun Grid Engine to work on Ubuntu 22.04. Replaced manual processes with a **GitOps pipeline** for our SaaS environment releases, enabling blue/green and canary testing of new infrastructure and software across multiple clusters, and **reducing deployment time** across our environments from **days** to **hours** as well as adding extra quality checks.

Site Reliability Engineer
Jan. 2022 - Jan. 2023

On-premises AI GPU research and training environment for ~50 engineers and researchers, and customer-facing SaaS environment in **Azure** spanning 6 regions. Management of infrastructure deployments using **GitLab CI** & **Terraform**, designing modules to abstract this, as well as conformance testing frameworks with **Terratest**. Led datacentre migration to a new colocation.

Capgemini HMRC Market Unit

Platform Engineer – Metrics & Monitoring
Jul. 2021 - Dec. 2021

Metrics & monitoring platform for HMRC AWS infrastructure, spanning two regions with thousands of EC2 nodes, and hundreds of Kubernetes nodes (10,000+ pods). Implement **Thanos** in a large **AWS** environment for Prometheus metric aggregation and long-term retention, enabling a single pane of glass across the entire estate. Architected and deployed blackbox monitoring solution for key platform services such as **Consul** & **Vault**, monitoring availability from various tenants to ensure SLAs were not breached.

Flextrade

DevOps Engineer
Aug. 2020 - Jul. 2021

Created bare-metal **Kubernetes** clusters using **PXE automation**. Migrated CI/CD to new Kubernetes deployment, **reducing build times by 40%**. Piloted **hybrid-cloud** bursting workloads into **AWS**. Led cross-functional initiative for continuous delivery framework. Implemented automation framework for deploying VMs from Jira tickets.

Systems Administrator
Mar. 2019 - Aug. 2020

Operations & incident response in a complex on-premises, multi-tenant SaaS environment. Administration and configuration management of Linux & Windows systems - bare-metal and virtualised. VMWare ESXi/vSphere administration, maintenance & upgrades, including vSphere 6 to 7 and linked mode. Storage management - administering and provisioning LUNs, deploying and configuring NFS servers. Firewall, VPN & L2 switch configuration and troubleshooting, TLS certificate management, PCAP analysis for latency issues. Mentoring & training junior engineers to complete BAU tasks.