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[GitHub](#) | [LinkedIn](#) | [Website](#)

Aut viam inveniam, aut faciam (I will find a way, or I will make one)

Professional Summary

• **Principal Engineer and CIO** with 25+ years of software engineering, platform architecture, and security leadership across enterprise organizations including Apple, Amazon Web Services, and cryptocurrency trading platforms

• **Multi-cloud and bare-metal infrastructure expert** with proven track record managing global infrastructure deployments, including 30,000+ servers for Apple Pay China launch and hybrid Kubernetes platforms spanning AWS, GCP, and bare-metal environments

• **Security and compliance leader** with deep expertise in WAF management, PKI systems, encryption architectures, and regulatory compliance including FedRamp, PCI DSS, and financial services requirements across banking and cryptocurrency trading platforms

• **Open source contributor and technical innovator** with multiple production-grade projects including self-updating binary distribution systems, Kubernetes operators, and AI-powered operational automation tools achieving significant cost reductions and performance improvements

• **Engineering standards and culture builder** with extensive experience founding security teams, establishing DevOps practices, creating technical training curricula, and implementing engineering standards across organizations

Experience

Terrace | *CIO & Director of Infrastructure and Security* | 2023-Present

• **Architected multi-cloud hybrid platform** spanning AWS, GCP, and bare-metal Kubernetes clusters using Talos, achieving 76% cost reduction and 40% latency improvement while eliminating vendor lock-in through cloud-agnostic design

• **Built federated observability system** solving metrics-vs-logs cardinality problem across distributed clusters using Prometheus + Thanos for metrics federation and Loki + Elasticsearch for high-cardinality WAF analytics, processing 2M+ ModSecurity logs daily

• **Automated security incident response** with AI-powered diagnostic bots using Claude Code CLI and custom MCP tools, achieving 85% MTTR reduction and automating routine operational diagnostics across multiple Kubernetes clusters

• **Designed comprehensive infrastructure as code** using Terraform for multi-account AWS and multi-cloud deployments with GitOps workflow via Atlantis, enabling infrastructure changes through code review process with complete audit trails for regulatory compliance

• **Implemented distributed cryptocurrency data curation platform** with extensible middleware pipeline handling unpredictable market data patterns, eliminating storage waste and API request costs while serving sub-10ms latency access to curated market data

Amazon Web Services | *Systems Development Engineer, Senior DevOps Consultant* | 2022-2023

• **Automated FedRamp compliance processes** for Amazon Global Accelerator systems, enabling Federal government customers through continuous compliance validation and security tooling

• **Developed Kubernetes Operators for AWS WAF** providing declarative policy management and GitOps-friendly infrastructure as code, achieving 95% reduction in WAF policy deployment time

• **Built security automation tools** for government cloud environments, implementing infrastructure as code patterns for compliance-focused deployments

Orion Labs | *Head of Infrastructure, Principal Engineer* | 2020-2022

• **Built self-bootstrapping Kubernetes platform** for SaaS, cloud-premises, on-premises, and air-gapped installations, creating one-click deployment system that customers described as 'flawless' and 'easiest, highest quality software installation'

• **Solved thundering herd scaling problem** by migrating from AWS Application Load Balancers to Network Load Balancers when MDM agent fleet restarts created traffic spikes that exceeded ALB autoscaling capabilities

• **Developed voice bot framework** and COVID epidemiological contact tracing system for Massachusetts Bay Transit Authority, enabling real-time and historical contact tracing with privacy-preserving design

• **Architected voice-driven automation platform** enabling API-driven bot development for customer workflow automation on voice communication systems

Scribd | *Principal DevSecOps Engineer* | 2018-2020

• **Founded and led Scribd's first Security Team**, establishing security practices, processes, and culture for rapidly scaling company serving millions of users globally

• **Built scalable SIEM system** handling petabytes of log data from worldwide CDN footprint, providing real-time threat detection and self-service analytics dashboard for company-wide visibility

• **Created managed secrets system** with YAML interface on Hashicorp Vault, enabling developers to define secrets structure without accessing production values, supporting multi-auth (LDAP, TLS Certificate, Kubernetes, IAM) and released as open source

• **Implemented enterprise WAF** with ModSecurity deployment, blocking millions of malicious requests while maintaining high availability for global user base

• **Designed Kubernetes and Fastly CDN integration** with automated cache expiration tracking for global-scale JavaScript asset management, achieving improved cache hit rates and significant bandwidth cost reduction

Stitch Fix | *Sr. DevOps/SRE* | 2017

• **Built Identity and Access Management system** for Algorithms & Analytics department providing secure access to all resources with high availability - remained operational during company-wide SSO vendor breach

• **Implemented IAM Role/STS credentials on developer laptops** enabling passwordless authentication with zero code alteration to Amazon SDK, providing seamless local/cloud development experience

Apple | *Lead DevOps Engineer* | 2015-2017

• **Led historic Apple Pay DevOps implementation** achieving first-ever hardware ownership grant in Apple's history through modern administration and audit patterns, breaking traditional organizational barriers

• **Architected command and control system** for global Apple Pay launch managing 30,000 servers worldwide, achieving zero downtime during critical 2015-2017 period including flawless China market launch

• **Designed and implemented first automated CI/CD system** for Apple Pay with dynamic environment creation per pull request, providing complete isolation and automatic resource cleanup

• **Built private OpenStack cloud** from unused hardware achieving 100x acceleration of build and test cycles, overcoming datacenter limitations and usage restrictions

• **Created security-first OpenStack deployment** so secure that Apple's penetration testing teams required security protections to be stood down for audit - described as 'a first' at Apple

Wells Fargo | *Sr. Software Engineer* | 2014

• **Built static code analysis tools** for Governance, Risk Management, and Compliance validation of Puppet infrastructure-as-code using Antlr parser, enabling pre-deployment compliance validation and audit trails

Data Recognition Corporation | *Principal DevOps Engineer* | 2014-2015

• **Designed auto-scaling Continuous Delivery environment** for educational testing platform, migrating multiple applications from proprietary systems to open source platforms while eliminating vendor lock-in

• **Developed and taught comprehensive DevOps curriculum** covering technology, disciplines, and cultural transformation for internal teams

U.S. Bank | *Security Architect, Application Architect* | 2007-2014

• **Developed and managed WAF for entire U.S. Bank** over multiple years with minimal team size, with management backing policy decisions and achieving zero security breaches through comprehensive application security

• **Built encryption key management and distribution service** saving over $1M compared to vendor bids by integrating multiple components with one-button delivery across network tiers and multiple countries - still in production use

• **Designed credit card PAN encryption and tokenization system** for merchant acquiring with scalable, highly available architecture protecting millions of transactions while maintaining PCI DSS compliance

Skills

Languages: Golang, Python, Bash, Ruby, Java, JavaScript, TypeScript, Perl, Groovy

Cloud Platforms: AWS, GCP, Azure, OpenStack

Kubernetes: EKS, AKS, Rancher, Kubeadm, Talos, Operator Framework, Helm, Kustomize, Replicated, Minikube

CI/CD: Jenkins, GitHub Actions, FluxCD, ArgoCD, TeamCity, Travis, CircleCI, Tekton

Databases: PostgreSQL, MySQL, Oracle, Redis, ClickHouse, TimescaleDB, DynamoDB, GraphQL

Security: OpenSSL, OpenSSH, Luna HSMs, OpenVPN, SIEM, Kerberos, PKCS, IPSec, PKI, OIDC, SAML, JWT

Networking: TCP/IP, DNS, Load Balancers, Proxies, Istio, Consul, Nginx, HAProxy, Envoy

Open Source Projects

Dynamic Binary Toolkit (DBT) - Self-updating signed binary distribution system for tools in cloud, containers, and laptops. Listed in awesome-go.

Diagnostic Slackbot - AI-powered operational diagnostics using Claude Code CLI with custom MCP tools for automated WAF, database, and Kubernetes troubleshooting.

Go Mason - Clean-room CI testing tool for local pipeline validation before pushing. Listed in awesome-go.

Managed Secrets - YAML interface on Hashicorp Vault enabling teams to manage secrets structure without production access. Used in production at multiple companies.

Dex SSH Connector - SSH authentication connector for Dex identity provider implementing OAuth2 Token Exchange with SSH-signed JWTs for passwordless Kubernetes authentication.

kubectl SSH OIDC Plugin - kubectl credential plugin providing passwordless authentication using SSH keys and OIDC Token Exchange flow.

NamedReturns Linter - golangci-lint plugin enforcing self-documenting code through named return values. Organization-wide standard at current company.