Nik Ogura

Infrastructure - Security - Software - Platform - Tools - Leadership

San Diego County, USA

Viam inveniam, aut faciam. *(I will find a way, or I will make one)*

Professional History

Terrace: 2023 - Present Director of Cloud Infrastructure and Security, Chief Information Officer

- Built a multi-cloud, hybrid Kubernetes platform across multiple cloud providers and on-prem systems.
- Secured company IP during critical moment of turnover. Recovered company systems in a matter of hours.
- Led Observability efforts as part of Engineering Management. Designed systems, and educated, engineers on how to create systems that can be monitored in a performant and scalable manner. Reduced Monitoring spend by a factor of 100x.
- Promoted to CIO and acting Head of Engineering. Led a globally distributed team to re-architect Terrace's core product from the database up to meet all business requirements for a performant platform for DeFi, CeFi and Cryptocurrency trading. This system combines Fintech, Blockchain, Observability and Security on Kubernetes. Launched Terrace's flagship product in less than 3 months from takeover.

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

- Implemented automation processes to ensure the security and maintenance of Amazon Global Accelerator systems for FedRamp.
- Served as internal Security Consultant to Amazon Global Accelerator. Certified as AWS Solutions Architect and Hashicorp Vault Professional.
- Created Kubernetes Operators for Amazon Web Application Firewall.

Orion Labs: 2020 - 2022 Head of Infrastructure, Principal Engineer

- Lead Infrastructure/DevOps/SRE Team across AWS, Azure, and On Prem systems.
- Designed and implemented a Kubernetes platform for SaaS, CloudPrem, OnPrem, and Air-gapped installations for realtime secure voice communications.
- Built contract tracing systems used by public transportation systems for epidemiological contract tracing during Covid.
- Developed a cutting-edge Framework for Voice Bots using the Orion Platform on Kubernetes.
- Created engineering standards. Led internal training initiatives on technology for all employees.

Scribd: 2018 - 2020 Principal DevSecOps Engineer, Sr. DevOps/SRE

- Founded, hired, and led the Scribd Security Team.
- Developed a scalable SIEM system to monitor and secure Scribd's global CDN, ensuring the protection of customer data.
- Implemented a WAF (Web Application Firewall) to protect Scribd's services and network.
- Created an easy-to-use YAML interface on Hashicorp Vault called "Managed Secrets" for streamlined management of sensitive information- now published as an Open Source project.
- Designed Kubernetes clusters and Kubernetes native tooling that linked application workloads to Fastly CDN caches, enabling efficient tracking of cache expiration of precompiled javascript code at world-wide scale.
- Created an Identity and Access System, complete with PKI to protect internal networks and Kubernetes clusters against unauthorized access.

Stitch Fix: 2017 - 2017 Sr. DevOps/SRE

- Created the Identity and Access System whereby the Algorithms & Analytics department connects to every resource, instance and container in the stack. System later was proven to be both secure and reliable when the 3rd party system used by the rest of the company went down in a breach.

- Enabled AWS IAM Role based development that works transparently on a laptop as if the computer were actually an EC2 node. Whether local or in the cloud, code works exactly the same.

- Created a system for interactive containers in the cloud that enabled Data Scientists to run their code near their data transparently as if it was local.

Apple: 2015 - 2017 Lead DevOps Engineer

- Led Apple Pay DevOps team. I Brought Security, Audit, and Engineering together on a modern, best-practice based pattern of administration and audit. By understanding the technical and human needs of all concerned, and exhibiting relentless personal integrity, I allowed Apple Pay to take full ownership of their own hardware - a first in Apple history.

- Designed and built a fully automated test-driven CI/CD system for Apple Pay - the first of its kind at Apple.

- Architected the command and control architecture for Apple Pay for the China launch in 2016. 30k Servers under control across the globe.

- Created a private OpenStack cloud for testing and verification of applications from bare metal hardware. This sped up Apple Pay's build and test cycle by 100x due to lack of testing infrastructure, and a prohibition on using public clouds.

- Created a container based system for full end-to-end integration testing of the Apple Pay platform on any laptop. This was recognized as a first for Apple.

Data Recognition Corporation: 2014 - 2015 Principal DevOps Consultant

- Designed an auto-scaling Continuous Delivery System for educational testing.

- Shepherded multiple applications from proprietary systems to fully Open Source platforms.

- Designed and taught internal training curriculum for the technology, disciplines, and cultural concepts that come under the heading of DevOps.

Wells Fargo: 2014 DevOps Consultant, Sr. Software Engineer

- Led Development, Testing, and Delivery of Applications and Middleware.

- Module Developer for Continuous Integration/ Continuous Delivery of multiple applications across multiple technologies and multiple operating systems.

U.S. Bank: 2007 - 2014 Security Architect, Application Architect, Sr. Systems Engineer / SRE

- Security Architect for Corporate Payment Systems. Consultant for Threat Modeling, Penetration Testing, Security Remediation.

- Built and Maintained Web Application Firewalls (WAF) for all of U.S. Bank. Did it single-handedly for 5 years while still serving as Security Architect.

- Consultant / Trainer for Automated Testing. Wrote training curricula and taught these subjects through U.S. Bank's internal development portal.

- SRE for Payment Systems (Credit card processing). Maintained PCI DSS compliance. Created Observability / Monitoring / Alerting systems. Created Encryption and Tokenization system for PAN (Primary Account Number) data in Merchant Acquiring systems.

- Created Encryption Key management and delivery service used by multiple users in multiple countries.

- Designed and implemented systems for Code Signing, Continuous Integration, and Artifact Storage.

Plain Black: 2006 - 2007 Software Engineer

- Software Engineer - WebGUI Content Management System. Managed Customer Service for paid and open source community customers.

Universal Talkware: 2000 Lead Systems Engineer

- Built Network Operations Center, Internal tools. Ran On Prem / Bare Metal Servers/ Datacenter

Hessian & McKasy: 1999 - 2000 Director of IT

- Ran IT for a 40 seat law firm. Desktops, Servers, Network, Backups, Compliance, Security - entire electronic / technological base of the company. Navigated the "Y2K Crisis".

Skills

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

Frameworks: Spring, Antlr, Gherkin, Cucumber, PyTest, Test::More, Go Test, Godogs, Selenium

Disciplines: Test Driven Development, Behavior Driven Development, Agile, Rugged, SOLID

Compute / Virtualization: Bare Metal, VmWare, Libvirt, OpenStack, EC2, GCP, Azure, VirtualBox, XHyve

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

Operating Systems: Linux, Windows, MacOS, Unix

Web Servers/ Load Balancers: Nginx, Apache, Envoy, HAProxy

Containerization: Kubernetes, ECS, Docker, Containerd

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

Firewalls: IPTables, PF, AWS WAF, Fastly WAF, ModSecurity

Databases: Postgresql, Mysql, Oracle, Redis, Clickhouse, TimescaleDB, DynamoDB, Hasura, GraphQL

Configuration Management: Puppet, Chef, Ansible, Terraform,

Continuous Integration/ Testing: Jenkins, GitHub Actions, TeamCity, Travis, CircleCI, FluxCD, ArgoCD, Tekton

Version Control: Git, Subversion, Mercurial, GitHub, GitLab

Hyperscalers/Compute Cloud: AWS, Azure, GCP, OpenStack

Access and Identity: LDAP, OIDC, SAML, FusionAuth

Secrets Management: Hashicorp Vault, AWS Secrets Manager, AWS Systems Manager Parameter Store

Observability: Prometheus, AlertManager, Grafana, Loki, Promtail, Thanos, Fluentd, Fluent-bit, ElasticBeats, ElasticSearch, Artifactory, Logstash, Kibana, CloudWatch, Splunk, DataDog

Networking / Service Meshes: TCP/IP, Routers, Gateways, NAT, DNS, Forward Proxies, Reverse Proxies, Istio, Consul

CDNs: Fastly, Cloudfront

Compliance: FedRamp, SOC2, PCI, SOX, HIPAA, CIS, CVE, Inspec

Messaging: Kafka, Elasticache, SNS, RabbitMQ

Blockchain / Crypto: Ethereum

Profiles

Web Site https://nikogura.com

Portfolio https://github.com/nikogura

LinkedIn https://www.linkedin.com/in/nikogura/

Open Source Projects

Dynamic Binary Toolkit https://github.com/nikogura/dbt A delivery system for self-updating, signed tools. Listed in *Awesome-Go* https://github.com/avelino/awesome-go.

Go Mason https://github.com/nikogura/gomason A tool for doing clean-room CI testing locally. Listed in *Awesome-Go*.

Managed Secrets https://github.com/nikogura/managed-secrets A YAML interface on Hashicorp Vault that allows teams to manage their secrets, without being to access them in production.