

Nik Ogura

Viam inveniam, aut faciam.

(*I will find a way, or I will make one*)

Professional History

Terrace: 2023 - Present Chief Information Officer

- Hired as Director of Cloud Infrastructure and Security
- Architected a multi-cloud, hybrid Kubernetes platform spanning various cloud providers and on-premises systems. Migrated from GCP to AWS and On Premesis.
- Protected company intellectual property during a critical turnover period, swiftly restoring systems within hours.
- Drove Observability initiatives in Engineering Management by designing scalable monitoring systems, resulting in a 100x reduction in monitoring costs.
- Elevated to CIO and Head of Engineering, overseeing the global team in re-architecting Terrace's core product for DeFi, CeFi, and Cryptocurrency trading, integrating Fintech, Blockchain, Observability, and Security on Kubernetes.
- Launched Terrace's flagship product in less than 3 months from assumption of new duties by re-architecting the entire platform from the database to the front-end to meet business requirements around scale and latency. Brought latencies of > 600ms down to in some cases *microseconds* and scaled the data handling capabilities of the product by over 100x.
- Automated Security and Deployment incident response with AI bots that work through Slack to diagnose and resolve WAF blockages, Vulnerability Reports, and Deployment issues in Kubernetes, Nginx, and ModSecurity.

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

- Automated processes to secure and maintain Amazon Global Accelerator systems for FedRamp compliance.
- Provided internal Security Consulting for Amazon Global Accelerator, holding certifications as AWS Solutions Architect and Hashicorp Vault Professional.
- Developed Kubernetes Operators for Amazon Web Application Firewall implementation.

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

- Led a team managing Infrastructure/DevOps/SRE responsibilities on AWS, Azure, and On-Prem systems.
- Designed and implemented a Kubernetes platform enabling secure voice communications in cloud, on-prem, and air-gapped installations.
- Developed contact tracing systems for public transportation during Covid outbreak.
- Built a Framework for Voice Bots using Orion Platform on Kubernetes.
- Established engineering standards and conducted technology training for all employees.

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

- Founded and led Scribd's Security Team
- Developed a scalable SIEM system to monitor and secure Scribd's global CDN for customer data protection
- Implemented a Web Application Firewall to safeguard Scribd's services and network
- Created an easy-to-use YAML interface on Hashicorp Vault 'Managed Secrets' for efficient management of sensitive information, now an Open Source project
- Designed Kubernetes clusters and native tooling that connected application workloads to Fastly CDN caches for tracking cache expiration of precompiled javascript code at a global scale
- Established an Identity and Access System with PKI to defend internal networks and Kubernetes clusters from unauthorized access

Stitch Fix: 2017 - 2017 Sr. DevOps/SRE

- Developed an Identity and Access System for the Algorithms & Analytics department to access all resources in the stack securely and reliably.
- Created an AWS IAM Role based development allowing seamless code execution between local machines and EC2 nodes.
- Built a cloud-based system for interactive containers, enabling Data Scientists to run code near their data seamlessly as if it were local.

Apple: 2015 - 2017 Lead DevOps Engineer

- Led Apple Pay DevOps team in implementing a modern administration and audit pattern, fostering collaboration between Security, Audit, and Engineering which led to full hardware ownership by Apple Pay. This was a first in Apple's history.
- Designed and implemented the first automated test-driven CI/CD system for Apple Pay at Apple.
- Architected the command and control architecture for global Apple Pay launch in China, managing 30k servers worldwide.
- Created a private OpenStack cloud to accelerate Apple Pay's build and test cycle by 100x, overcoming infrastructure limitations and cloud usage restrictions.
- Developed a container-based system enabling end-to-end integration testing of Apple Pay platform on any laptop, a pioneering achievement within Apple.

Data Recognition Corporation: 2014 - 2015 Principal DevOps Consultant

- Created auto-scaling Continuous Delivery System for educational testing.
- Successfully migrated applications from proprietary systems to fully Open Source platforms.
- Developed and delivered internal training curriculum covering DevOps technology, disciplines, and cultural concepts.

Wells Fargo: 2014 DevOps Consultant, Sr. Software Engineer

- Led the development, testing, and delivery of applications and middleware.
- Developed modules for continuous integration/continuous delivery of multiple applications across various technologies and operating systems.

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

- Worked as a Security Architect for Corporate Payment Systems, providing consultation on Threat Modeling, Penetration Testing, and Security Remediation.
- Solely developed and managed Web Application Firewalls (WAF) for the entire U.S. Bank over 5 years while concurrently serving as Security Architect.

- Provided consultancy and training on Automated Testing, including developing training materials and teaching classes through the organization's internal development platform.
- Managed Payment Systems' reliability engineering (SRE), ensuring PCI DSS compliance, and implemented Observability, Monitoring, and Alerting systems. Established Encryption and Tokenization mechanisms for PAN data in Merchant Acquiring systems.
- Developed an Encryption Key management and distribution service utilized by numerous users across various countries.
- Engineered systems for Code Signing, Continuous Integration, and Artifact Storage.

Plain Black: 2006 - 2007 Software Engineer

- Developed software for WebGUI Content Management System.
- Handled customer service for both paid and open source community customers.

Universal Talkware: 2000 Lead Systems Engineer

- Established Network Operations Center and internal tools.
- Managed On-Premise / Bare Metal Servers and Datacenter operations.

Hessian & McKasy: 1999 - 2000 Director of IT

- Oversaw all IT operations for a 40-seat law firm, including desktops, servers, network, backups, compliance, and security.
- Successfully managed the company's entire electronic and technological infrastructure.
- Skillfully navigated the challenges of 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/ESX/ESXi, Qemu, KVM, OpenStack, EC2, GCP, Azure, VirtualBox, XHyve, Vagrant, Libvirt, Proxmox

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, PXE, TFTP

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.