

MIKE HOLZINGER

mike.holzinger@gmail.com

Brooklyn, NY 11213

I am a thoughtful systems engineer focusing strongly on DevOps, tooling, and systems development. I am experienced in coding to protocol specifications, PKI, TLS, and many Network protocols.

MRI Technologies

NASA

Sr. Systems Engineer

2023

Senior systems engineer for cloud-hosted projects at NASA, managing and refining proof of concept code for Kubernetes deployments and GitLab pipelines on the Google Cloud Platform, enhancing infrastructure scalability and resilience.

Notable work:

Modernized GitLab pipelines, transitioning from Docker-in-Docker to Kaniko. This refactoring removed legacy dependencies and slashed deployment times from 1 hour to under 8 minutes.

Built out CI automation and scripting Kubernetes-related tasks, including database job scheduling and export operations, contributing significantly to the efficiency and reliability of the space and aeronautics cloud platform.

I deployed new Grafana dashboards and trained developers in using forwarded logging assets and Kubernetes pod metrics to measure deployed changes, giving observability to the platform.

Key Technologies:

Docker, Gitlab, Google Cloud Platform, Grafana, Keycloak, Kubernetes, Python, Terraform

HTC Global

Disney (Parks and Recreation)

Site Reliability Engineer

2022 - 2023

SRE for over 500 applications migrated from hardware to AWS ECS-hosted solutions at Disney Parks and Recreation. Managing change for application onboarding, scheduled nightly maintenance windows, and served as incident management commander. I extensively utilized Python to automate and streamline these processes.

Notable work:

Developed Python-based automation for Service Now, integrating it with the Slack Notification API. This innovation significantly improved escalation and alert management, leading to a marked decrease in missed change management windows and enhanced operational efficiency.

Employed Python scripting with tools for AppDynamics and Grafana for monitoring and proactive incident management, contributing to a more reliable application environment.

Tools/Platforms:

AWS ECS, AppDynamics, Grafana, Prometheus, Python, Rundeck, Service Now, Slack Workflow Builder, Spark

SMARSH

Site Reliability Engineer

July 2021 - September 2022

Embedded SRE working alongside application developers, migrating a .NET based VMWare hosted application stack to Kubernetes. My role included moving legacy Ansible and BOSH infrastructure to Kubernetes hybrid cloud using VMWare-hosted Cloud Provider Interface and AWS/EKS.

Notable work:

Automating configuration for SOLR private cloud, admin for AMQ, Writing tooling for Mutual TLS, and Opentelemetry application integration for DataDog

Migrated Grafana dashboards to Datadog using OpenTelemetry as the data source.

Key Technologies:

Ansible, Artifactory, Bosh, CircleCI, Credhub, Docker, Github Actions, Hashicorp Vault, Kubernetes, Python, Terraform, Saltstack, Vsphere, YAML

IBM

Watson Data Platform (Cloudant)

Software Engineer

2018 - 2019

Cloudant NoSQL Document Storage as a Service (CouchDB), This role was primarily operations and development, finding issues with CouchDB production issues.

Notable work:

I wrote a client tool for support and operations engineering, cutting operator time by enabling insights into issues without logging into server nodes.

Wrote data health investigation tooling for cluster information, one tool to bring multiple node details

together.

FoundationDB Document Storage: Wrote and installed metrics performance tooling for FoundationDB and laid the groundwork for a new document store infrastructure with a modern engine powering the Watson Data Platform.

Key Technologies:

BASH/Shell, C/C++, Cloudbant, CouchDB, Erlang, IBM Cloud, FoundationDB, Kubernetes, Python, REST API, Softlayer

IBM Global Managed Cloud (GBS)

Software Engineer

2017 - 2018

Independent contributor for Oracle SAP and distributed VMWare offering within IBM. I wrote code and tooling for CI/CD, Operations, and the GBS Security Squad.

Notable work:

Security & Compliance + Data Remediation

I wrote automated host discovery for compliance reporting and designed and built a service to reconcile resources in IBM's compliance system - Mixed Address Database "MAD"

Fully automated GitHub for Gitflow model

Integrated API feature to control dual control and review features for GitHub and Chef automated metrics collection for real-time inventory + auditing

Key Technologies:

Chef, GitHub Enterprise, Knife, REST API, Ruby

IBM Bluemix - Object Storage:

Systems Engineer

2016 - 2017

DevOps and Tier 2 On-call technology integrations team for Object Storage deployment operations for IBM's Cleversafe acquisition

Notable work:

Wrote software to deploy inventory and automatic system rollout for Cleversafe user account creation tooling, client auditing, and account remediation for petabyte-scale IBM Cloud S3 Object Storage deployments.

Key Technologies:

Ansible, Ansible, AWS, ELK, Flapjack, IAM, IBM Cloud, Pagerduty, Python, S3, Sensu, SoftLayer, Softlayer, YAML

IBM Bluemix - OpenStack:

Operations Engineer - OpenStack

2015 - 2016

Linux Operations engineer for OpenStack service on IBM Cloud Operations and Cloud deployment operations for Bluemix Local and Bluemix Cloud. OpenStack admin for all customer instances.

Notable work:

As leadership for West Coast Operations Lead, I ran orientation and onboarding for new employees in IBM and IBM transfers to BlueBox and trained new sysadmins and new operations engineers.

Deployed OpenStack on SoftLayer bare-metal cloud, building minoring with Sensu operational dashboards with Grafana.

Key Technologies:

Ansible, ELK, Linux, Grafana, OpenStack, PagerDuty, Softlayer, SysAdmin

BLUE BOX GROUP

Operations Engineer - Linux

2014 - 2015

Linux Operations engineer and DevOps role for OpenVZ and OpenStack private cloud responsible for migrating BlueBox customer tenant OpenVZ applications, databases, and infrastructure to OpenStack.

Admin and on-call support for MySQL/MariaDB, PostgreSQL, and PGAdmin-hosted instances. This included building new hosted Primary and Secondary SQL solutions and disaster recovery.

Notable work:

Service ownership for High Availability Load Balanced services and primary service owner and Registrar for published CA and Internal Certificate Authority

Primary service owner for corporate bastion/authentication gateway

Key Technologies:

Apache, Grafana, HAProxy, HaProxy, Nagios, OpenVZ, PKI, Perl, Python, Ruby, SSH Key auth, Yubikey/Yubico, Zabbix, Nginx

TOWNSEND SECURITY

Software Engineer

2007 - 2013

Lead C developer for cross-platform SaaS client applications, Primary Hardware Security Module (HSM) Integration

Tools built:

- Central Certificate Authority for testing, demos, and handling partner deployments (Bash / OpenSSL)
- Metrics testing: Encryption API IOPS / HA failover and scaling (AWS, Perl, Bash)
- Consumer PKI deployment tool (SSL certificate) Windows/Linux (OpenSSL / Nullsoft)
- Java key requestor client application for Hardware Security Module (Java)
- Cross-platform PKI key client modules for Townsend Hardware Security Module

Used Jenkins to target building to multiple Linux platforms for the HSM using triggers on git commit builds and wrote the testing harnesses to validate new builds.

Certifications: NIST certifications for key management cryptographic algorithm libraries written for Townsend Security

- AES, PRNG, SHA, HMAC, FIPS 140-2
-

Skills/Languages:

Languages: Python (3 years), C (7 years), Ruby (2 years)

Scripting: Shell/Bash (10+ years), YAML (6 years)

Linux/Unix System Administration: 10+ years

Extensive knowledge: AES, PKI, Github/Gitlab Automation

Tools/Frameworks:

Observability: Grafana, Prometheus, ServiceNow, Sensu, Google Cloud Platform

Build + Deploy, CI/CD Automation: Chef, Ansible (2+ years each), Travis, Jenkins, Google Cloud Platform, Gitlab, Github Actions

Containers: Docker, OpenVZ, OpenStack

Cloud: AWS ECS, GCP EKS

Database/DBA:

Admin and on-call support for MySQL/MariaDB, PostgreSQL and PGAdmin

Education:

Green River Community College: Advanced HS and AA completion