# MIKE HOLZINGER

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I am a thoughtful engineer who enjoys learning new technologies and helping others learn as well. My core strengths are writing to protocol specifications, PKI, TLS and scripting.

# **MRI Technologies**

**NASA** 

### Sr. Systems Engineer

2023

Senior systems engineer for cloud-hosted projects at NASA.

#### **Key Tasks:**

Managed and refined proof of concept code for Kubernetes deployments and GitLab pipelines on Google Cloud Platform, enhancing infrastructure scalability and resilience.

Innovatively refactored pipelines, transitioning from Docker-in-Docker to Kaniko, and optimized CI/CD processes, slashing deployment times from 1 hour to just 8 minutes.

# **Key Technologies:**

Terraform, Kubernetes, Docker, Gitlab, google Cloud Platform

#### **HTC Global**

**Disney (Parks and Recreation)** 

# Site Reliability Engineer

2022 - 2023

SRE for over 500 Java applications migrated from hardware to AWS ECS-hosted solutions at Disney Parks and Recreation.

#### **Key Tasks:**

Change management for application onboarding, nightly maintenance window scheduling, and incident management commander.

Software automation for integrated Service Now, Application Dynamics, and various change management service tooling.

#### **Tools/Platforms:**

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

### **SMARSH**

## Site Reliability Engineer

July 2021 - September 2022

Embedded SRE working alongside application developers, taking legacy stuff and make it cloudy.

### **Key Tasks:**

Migrating legacy Ansible and BOSH infrastructure to Kubernetes private cloud using VMWare Cloud Provider Interface.

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

#### **Tools/Platforms:**

Ansible, Artifactory, Bosh, CircleCl, Credhub, Docker, Github Actions, Hashi Vault, Kubernetes, Python, Terraform, Vsphere, YAML

#### **IBM**

**Watson Data Platform (Cloudant)** 

#### **Software Engineer**

2018 - 2019

#### **Projects:**

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

- Wrote a client tool for support and operations engineering (Python), cutting Operator time by enabling insights to issues without logging into server nodes.
- Wrote data health investigation tooling for cluster information (Python / Erlang), one tool to bring multiple node details together.
- Wrote automated operation playbooks for support (Python / Bash), shortcuts to solve problems, fast.

FoundationDB Document Storage

 Wrote and installed metrics performance tooling for FoundationDB ( C / Bash), laying the groundwork for a new document store infrastructure with a modern engine powering Watson Data Platform.

### 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.

### **Projects:**

Security & Compliance + Data Remediation

- Wrote automated host discovery for compliance reporting (Chef / Knife)
- Designed and built a service to reconcile resources in IBM's compliance system Mixed Address Database "MAD" (Ruby / REST / Chef)

Fully automated Github for Gitflow model

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

### **IBM Bluemix - Object Storage:**

# **Systems Engineer**

2016 - 2017

#### **Projects:**

Object Storage deployment operations for IBM Cleversafe acquisition

- Wrote software to deploy inventory and automatic system rollout (Softlayer / Ansible / YAML)
- Wrote Cleversafe user account creation tooling (Ansible / Python / SoftLayer)
- Wrote client audit and account remediation tool for Cleversafe deployments covering petabyte object storage deployments (Ansible / Python / Softlayer)

#### Tier 2 On-call technology integration

- Monitoring: ELK, Sensu, Flapjack
- Pagerduty (escalation)

### **IBM Bluemix - OpenStack:**

### **Operations Engineer - Openstack**

2015 - 2016

Linux Operations engineer for OpenStack service on IBM Cloud.

#### **Key Tasks:**

Leadership: 1st Shift Operations Lead

- Orientation and onboarding for new employees in IBM and IBM transfers to BlueBox
- Training lead to new sysadmins and new operations engineers (OpenStack, Linux)

Operations: Cloud deployment operations for Bluemix Local and Bluemix Cloud

- OpenStack on SoftLayer bare-metal cloud (Softlayer / ELK / PagerDuty / SysAdmin)
- On-call operational admin for OpenStack (Softlayer / ELK / PagerDuty / SysAdmin)

#### **BLUE BOX GROUP**

#### **Operations Engineer - Linux**

2014 - 2015

Linux Operations engineer and DevOps role for OpenVZ and OpenStack private cloud.

#### **Key Tasks:**

Migrate BlueBox customer tenant OpenVZ applications, databases, and infrastructure to Openstack.

# **Primary service owner:**

- High Availability Load Balanced services (HAProxy / Perl / HaProxy)
- CA / Registrar: Internal Certificate Authority (Primary service owner)
- Corporate bastion/authentication gateway (SSH Key auth)

#### **TOWNSEND SECURITY**

**Software Engineer** 

2007 - 2013

#### Lead C developer for cross platform client applications

#### 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 (C)

Certifications: NIST certifications for core algorithm libraries written for Townsend Security

• AES, PRNG, SHA, HMAC, FIPS 140-2

# Skills/Languages:

Languages: C (7 years), Ruby / Python (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:**

Build + Deploy, CI/CD Automation: Chef, Ansible (2+ years each), Travis

Containers: Docker, OpenVZ, OpenStack

Cloud: AWS ECS, GCP EKS