

# MIKE HOLZINGER

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Brooklyn, NY 11213

## Skills/Languages:

Languages: Python (4 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, Travis, Jenkins, GCP, 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

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## BayOne Solutions

Cisco

### Sr. Software Engineer

*April 2024 - Currently working here*

Contributed to modernizing the WebEx corporate framework, responsible for configuring and deploying custom builds for over 300 clients.

### Notable work:

Migrated from Python 2.8 to Python 3.12, using tools like Tox and Pytest for testing and validation.  
Enhanced system architecture by implementing design patterns and Jinja templating.  
Developed linting tools to validate JSON, YAML, and environment key settings, ensuring consistency across more than 5,000 configuration documents.  
Collaborated with cross-functional teams to create comprehensive unit tests for system functionality.

## Tools/Platforms:

Docker, Github, Jenkins, Pytest, Python, Tox

## MRI Technologies

### NASA

#### Sr. Software Engineer

*March 2023 - November 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:**

Helm: Extensively applied Helm version locking to mitigate security vulnerabilities and improve dependency management, enhancing system security and reliability.

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, Helm, Keycloak, Kubernetes, Python, Terraform

## HTC Global

### Disney (Parks and Recreation)

#### Site Reliability Engineer

*September 2022 - April 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, OpenTelemetry, 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:**

Helm:

Acquired and applied advanced knowledge in Helm chart development, template management, and deployment strategies; emphasized security measures and optimization techniques to boost operational efficiency and system integrity.

Upgrading Windows features with Ansible for testing:

Updating VMWare Windows nodes to use modern .NET and ASP features and integrating IIS features into Ansible. Ansible was used in conjunction with Powershell embedded commands to pull assets from secret management and install and enable services on target Windows nodes utilizing the IIS signed certificate features to accomplish having a state-aware set of commands.

Windows Migration to Kubernetes:

Migrating Windows Server image using .NET and ASP with Ansible-managed assets and migrating the hosted Windows Server VM to a docker container using dotnet core for transition to Kubernetes. Testing the transition required manually setting load-balanced pools for red/green deployment and seamlessly managing the client upload windows without breaking any live transactions.

**Key Technologies:**

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

**IBM****Watson Data Platform (Cloudant)****Software Engineer**

*October 2018 - October 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**

*October 2017 - October 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**

*October 2016 - October 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**

*July 2015 - October 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**

*July 2014 - July 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, 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