



Programmer, Site Reliability Engineer, Open Source Author

Python, Go, TypeScript, JavaScript, Powershell, Kubernetes, Docker, Terraform, Ansible, AWS, on-prem

Professional experience

Site Reliability Engineer

Indeed (April 2022 – Present)

- » Owned reliability initiatives for finance applications responsible for processing hundreds of millions of dollars annually. Guided teams on reliable practices, measured SLOs, and designed reliable, fault-tolerant systems for applications running in Kubernetes on AWS.
- » Built Terraform provider in Go to retrieve data from our internal service registry.
- » Contributed to internal tool for recovering from Kafka hotkeys, including Go backend code, frontend UX design, architecture design, and CI pipelines.

Systems Engineer

Virtu Financial (January 2019 – April 2022)

- » Managed on-premise production Linux servers used for global high frequency trading, including maintaining compliance with records and time syncing federal regulations. Regularly mitigated incidents with multimillion dollar impact quickly and safely.
- » Designed "diskset" system to protect business against data loss and enforce legally mandated separation between customer and proprietary trading. Wrote Ansible modules and web API endpoints in Python to manage encryption keys for Linux servers and store them in Active Directory.

DevOps Engineer

Certica Solutions (January 2017 – January 2019)

- » Headed technical client relationships with state and local education organizations around the country. Built highly available, scalable, and secure solutions for Ed-Fi student data systems. Advised decisions on information security and enterprise data quality.
- » Built Powershell and C# systems for deploying and managing enterprise applications.
- » Deployed infrastructure and code to AWS, Azure, and on-premise networks. Converted existing manual deployments to reproducible idempotent processes.

Systems Management Engineer

Double Line Partners (August 2013 – December 2016)

- » Deployed Ed-Fi student data systems for clients around the country. Responsible for reliability and security for sensitive K-12 student data.
- » Built Powershell modules for deploying and managing Ed-Fi software. Balanced competing business needs of custom per-client solutions and standardization for scale.
- » Implemented continuous integration across the company, saving developer time and reducing deployment failures.

Work samples

- » *progfiguration* <https://pages.micahrl.com/progfiguration/>
Infrastructure-as-code package, Python.
- » *LDAPEnforcer* <https://pages.micahrl.com/ldapenforcer/>
Declarative user manager for LDAP servers, Go.

- » *KeymapKit* <https://pages.micahrl.com/KeymapKit/>
Web components for visualizing keyboards, TypeScript.
- » *"A random failure"* <https://me.micahrl.com/q/outagewriteup/>
Post-mortem for an outage I caused.

Education

- » B.A. Linguistics, University of Texas, 2008