

KAI WEI MO

kaiweimo5@gmail.com • linkedin.com/in/kai-wei-mo • github.com/kai-wei-mo • kaiweimo.com

EDUCATION

University of Waterloo

Sep 2020 – Apr 2025

Bachelor of Computer Science

- 3.9/4.0 GPA, Term Distinction (All Terms), President's Scholarship of Distinction
- Courses: Distributed Systems, Computer Networking, Operating Systems, Database Management, Algorithms, Compilers

EXPERIENCE

Akuna Capital

Jun 2024 – Aug 2024

Platform Engineer Intern

Chicago, IL

- Migrated **Jenkins** from **kOps** to **AWS EKS** while strategizing data consistency and redundancy of **EBS** volumes, and optimized plugin image build to reduce deployment times by **76%**, enhancing testing capabilities for trading strategies.
- Introduced **SSO** login for **Jenkins** using **Azure Active Directory** with **SAML** protocol, enhancing security, and decreasing the need for quant traders to reauthenticate to a critical service by **80%**.
- Developed monitoring and alerting solutions and performed rolling upgrades on **Grafana**, **Prometheus**, **Loki**, and **Thanos**, creating detailed dashboards for financial trading and quantitative research.

Apple

Jan 2024 – Apr 2024

Build and Tools DevOps Engineer Intern

Cupertino, CA

- Implemented **high availability (HA)** for **HashiCorp Vault** with **PostgreSQL** as backend storage, ensuring **99.999%** uptime, data redundancy, and backup capabilities through **Bash** scripts, **Kubernetes**, and networking policies.
- Added local deploy for **HashiCorp Vault** using **Bash** and **Minikube**, and conducted stress tests with **Locust** and **Python**.
- Introduced and led the adoption of **Splunk** to enhance application log management and analysis of **3** core services.

Nuro

May 2023 – Aug 2023

Cloud Reliability Engineer Intern

Mountain View, CA

- Created virtualized **k8s-in-k8s** on-prem clusters with **vCluster** integrated with **ArgoCD** on **GKE** to overhaul company-wide cluster management, achieving multitenant isolated work environments, shared CRDs, and centralized networking.
- Streamlined on-prem **Kubernetes** cluster orchestration introducing **Rancher** to automate cluster version upgrades, add reproducible cluster configs, and reduce provisioning times by **47%** using **Kubernetes**, **Helm**, **Terraform**, and **GCP GKE**.
- Created **GCP Cloud Run** service to ingest **GCP Recommender** analytics and suggest changes to **Terraform** infra code using **Python**, **Bash**, and **GitHub Actions**, improving performance, cost-savings, and reliability of **GCP** infra by **3%**.
- Introduced **Kyverno** into clusters to enforce secure admission policies, enhancing configuration and compliance.

Apple

Jan 2023 – Apr 2023

Build and Tools DevOps Engineer Intern

Cupertino, CA

- Developed a pubsub workflow automator using **Python**, **Flask**, **MySQL**, and **PostgreSQL**, enabling automation of **1.8+ million** development tasks for **300+** daily internal users and engineers.
- Invented domain-specific language (**DSL**) using **Python**, **Jinja**, and **YAML** designed for streamlined configuration management, including syntax and semantic parsers, and templating strategies.
- Produced user-facing frontend and documentation with **React**, **JavaScript**, and **Docusaurus** to ensure ease of use.
- Engineered plug-and-play extensibility for the pubsub using the **Observer** pattern to integrate with any webhook applications.

The Globe and Mail

Jan 2022 – Apr 2022

Site Reliability Engineer Intern

Toronto, ON

- Reduced node underutilization for **20+** nodes by redesigning **EKS** cluster modules, introducing **Karpenter** to provision optimal node types and **Gatekeeper** to achieve intelligent node-pooling using **Kubernetes**, **Helm**, and **Terraform**.
- Introduced **ArgoCD** as a **GitOps** CD tool for **Kubernetes** to increase ease of deployments by **20%** by introducing multitenant and multicloud deployments, improved rollbacks and disaster recovery, and role-based access control.
- Developed a transformation pipeline for **2+ million** daily news events using **Kinesis**, **Lambda**, **Flink**, and **DynamoDB**.

SKILLS

Languages: Python, Bash, C/C++, JavaScript, Java, SQL

Technologies: AWS, GCP, Docker, Kubernetes, Helm, ArgoCD, Prometheus, Grafana, Terraform, Jenkins, PostgreSQL, Flask, Git