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Keaton Cross

About Me

Highly motivated US/Canadian dual citizen with experience in software architecture, design, and development. Passionate about integrations, networking, and opinionated tech. Strongly focused on business impact and building the right thing.

Highlights

- Designed, implemented, and maintained an integration to automatically ingest a customer's entire CRM database, maintaining a P95 read latency of 80ms
- Developed Kubernetes operators, managing custom resources with VPN networking across clusters using Wireguard
- Configured load balancers, TLS certificates, ingresses and other cloud networking components to service high-volume traffic
- Designed and implemented long-term task scheduler capable of processing 2 billion events per month

Experience

2022–Current   **Software Developer IC3**, *Klue Labs, Inc.*, Winnipeg, MB.

- Designed, implemented, and maintained an integration to automatically ingest a customer's entire CRM database, maintaining a P95 read latency of 80ms
- Identified gaps in developer experience and created internal packages tooling for infrastructure and application code
- Drove adoption and usage standardization of Pulumi as Infrastructure as Code, increasing production deployments from set times every week to ad-hoc "as-ready" deployments
- Collaborated closely with product team to understand and refine customer needs, prioritize and estimate work, and push for implementation of high-value features
- Used Pulumi to develop and maintain services hosted on Cloud Functions, Cloud Run, and Kubernetes
- Configured load balancers, TLS Certificates, ingresses and other cloud networking components to service high-volume traffic
- Conceptualized and owned initiative to create system architecture diagrams using the C4 model to support cross-team initiatives
- Collaborated with a team of the most experienced interviewers to rebuild the technical interview process for developers
- Implemented a best-in-class observability and monitoring system for services, from instrumentation to alarms and dashboards
- Developed and maintained existing integrations with Slack, MS Teams, Salesforce and others
- Designed and implemented externally facing APIs for third-party developers to build integrations on our platform

2021–2022	**Software Developer 2**, *D2L Corporation*, Winnipeg, MB.

- Developed serverless microservices based on AWS services
- Designed and implemented a long-term task scheduler capable of processing 2 billion events per month
- Converted existing microservices from JavaScript to TypeScript
- Developed handlers and publishers for event-driven workflows in C#
- Defined infrastructure as code using Terraform, deploying services into AWS

2018–2021	**Full Stack Software Engineer**, *Sightline Innovation Inc.*, Winnipeg, MB.

- Developed Kubernetes operators that managed custom resources with VPN networking across clusters using Wireguard
- Designed, implemented, and documented public APIs exposing custom data models in Python3
- Implemented OpenID Connect servers and single sign on functionality, closely following IETF specification
- Wrote a Python3 client for AWS S3 API, improving performance by a factor of 20 over AWS official package
- Defined Kubernetes services, ingresses, and deployments for development and production environments

Skills

Backend	Python3, C#, TypeScript, Golang
Database	PostgreSQL, Redis, MongoDB, DynamoDB
Technologies	Docker, Kubernetes, Git, OAuth2/OIDC, Terraform, Pulumi, Linux, Bash

Education

2014–2020	**Bachelor of Science in Electrical Engineering**, *University of Manitoba*, *With Distinction*.

Projects

2021–2021	**Charitable Donation Tracker and Receipt Generator**, *Contracted Project*.

- Designed and implemented basic accounting software for a charity to track charitable donations in Golang

2016–2016	**Product Recommendation Engine**, *Contracted Project*.

- Developed product recommendation engine in Python2.7
- Integrated recommendation engine with existing client website

Achievements

2020	**Top 100/1278 teams**, *USAF Space Security Challenge*, Coalfire Labs Team.
2019	**19th in Canada**, *IEEExtreme Programming Competition*.
2018	**1st place**, *Canadian Satellite Design Competition*, UMSATS.
2014-2020	**Dean's Honour List**, *Faculty of Engineering*.
2017	**US Patent US11,494,807 B2**, *Formulation and Display of Product Representations*.