Timothy Kuo

Results-driven software engineer with a passion for solving complex problems and delivering innovative solutions. Experienced in leading collaborative development teams, optimizing system performance, and ensuring reliability. Seeking a dynamic position to apply technical skills and drive meaningful impact.

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EXPERIENCE

EnergyHub — *Senior Software Engineer*

June 2023 - Present

- Developer on Mercury Edge Connect (MEC) team, a service that connects 4,800+ devices across EVSEs, EVs, batteries, and more distributed energy resources (DERs) to EnergyHub's DER-management-system platform.
- Spearheaded the first integration into a new EnergyHub microservice, cross-collaborating with 2 other teams and leading 3 other engineers. This project not only set a precedent for other integrations, but also allowed EV partners to participate in managed charging events (over 60% of devices in MEC).
-Enhanced observability and reliability within MEC by implementing comprehensive monitoring, establishing on-call procedures, and optimizing runbooks.

Color Health — *Software Engineer II*

May 2022 - March 2023

- Led design and development for new Laboratory Inventory Management System (LIMS) that unlocks immunology and chemistry tests for Color's wet lab, enabling 8+ more test types for the lab.
- Implemented "rollback" functionality for LIMS state-machine, wrote its corresponding playbook, and trained the support team on its usage, eliminating all engineering involvement for related on-call tickets (5%).
- Redesigned a syncing system for sending raw lab data to LIMS, using S3/SQS to improve reliability and reduce manual intervention.

Amazon Web Services — *Software Engineer II*

August 2019 - March 2022

- Lead developer for a key service in AWS EC2, BlackfootService (BFS), a monitoring and command/control distributed systems service for over 60,000 devices worldwide.
- Designed and developed solution for a horizontal scaling cliff edge in BFS, decreasing our data sharing times from 240 to 50 seconds and mitigating all impact preemptively.
- Optimized caching logic to be event driven for vital BFS API endpoints, speeding up response time by 70%.
- Designed and implemented CI/CD plan for BFS with integration test suites and canary testing, reducing ticket count by 40%.
- Trained 4 other engineers on the team on BFS and documented best practices and runbooks for the organization.

EDUCATION

M.S. Computer Science, May 2019
Case Western Reserve Uni

B.S. Computer Science, May 2018
Case Western Reserve Uni

SKILLS

Python, Java, Golang

SQL (Sqlite, PostgreSQL), AWS services, Flask, Django, Django REST Framework, Spring Boot, Datadog, Docker, Github actions, Github workflows, CircleCI, React, Apache

Unix, Git

LINKS

www.timkuo.com