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EXPERIENCE

Sabbatical (purposeful career break) — Sep 2023 - Sep 2025

Participated in a programmer's retreat (see Education), focused on coding side projects, continuous skill refresh, and family caregiving. Traveled, picked up and rekindled hobbies, and significantly improved fitness/nutrition.

Walmart, Senior Software Engineer, Infra & Dev Tooling Lead, Walmart+ InHome Delivery — Feb 2020 - Sep 2023 InHome is a membership that offers free delivery inside your home, garage or kitchen by trusted Walmart associates.

- Team lead responsible for service availability & code quality as a Walmart service rapidly expanded from dozens of stores to over a thousand with reach to millions of US customers.
- Discovered & implemented fixes to multiple logic, code & architectural performance bottlenecks including: multiple successive rounds of SQL query optimizations, N+1 fixes (related to GraphQL), decomposing services into microservices, combining other microservices together when appropriate, average/tail latency issues.
- Responsible for planning, allocating & managing resources for all infrastructure capacity planning & continuous improvement initiatives including: reducing tech debt, security vulnerabilities, library/dependency, language runtime & OS upgrades, infrastructure right-sizing & tech changes mandated by business at Walmart scale.
- Evangelized technical best practices through code review, post mortems & mentoring of junior teammates.
- Built custom visualizations to summarize parts of our architecture including: software package (npm) transitive dependency change graphs, static analysis of api endpoints & calls (network call graph), among others.

Jetblack (Walmart), Staff Platform Engineer — Dec 2018 - Feb 2020

First portfolio company within Store N°8, the incubation arm of Walmart.

- Implemented Infrastructure as Code with Terraform, enabling consistent environments. Resources under management included: Kubernetes clusters, Kafka, namespaces, cluster policies as well as cloud Databases, storage buckets, resource group/projects, IAM roles, DNS.
- Planned & executed a business mandated cross-cloud migration from GCP to Azure.
- Identified manual, repetitive work tied to our Kafka clusters. Built a Kubernetes Operator to automate the sharing & syncing of Kafka-related Secrets/ConfigMaps across namespaces. Open-sourced a version of the tool.

LedgerX, Lead DevOps Engineer — May 2017 - Dec 2018

First federally regulated exchange to list fully-collateralized bitcoin swaps & options for the institutional market.

- Quickly contextualized, automated & standardized provisioning tools & cloud infrastructure (AWS, Cloudflare) to help launch the first US regulated cryptocurrency options exchange & clearinghouse.
- Implemented build & CI/CD pipeline improvements, including 75% reduction in containerized software stack build time & reduced docker image sizes.
- Code/query performance tuning, including multiple orders of magnitude improvement on real-time market surveillance SQL query run times.
- Systematically reduced cloud IT spend, including cutting CI/CD runner costs to 1/8th original costs & consolidating & right-sizing idle resources.

SKILLS

Programming Languages: Python, JavaScript, Bash, Smalltalk, Go, Rust

Infra Tools: AWS/GCP/Azure, Docker/Kubernetes/Operators/Istio/GitOps, Github/Gitlab, Terraform/Crossplane,GraphQL Databases/Tech: PostgreSQL, Kafka, Redis, Elasticsearch, TICK stack, Prometheus, Dynatrace, Distributed Tracing

EDUCATION

Recurse Center - Brooklyn, NY & Remote Program

Programmers retreat in NYC. Various 12 week batches programming at the edge of my abilities alongside motivated peers, Feb - May 2017, Sep 2023 - May 2024

Stanford University – Remote Program

Machine Learning Programming Course, Dec 2011

Columbia University - New York, NY

BS in Operations Research: Engineering Management, Minor in Entrepreneurship, Minor in Psychology, Class of 2010