Recent Professional Experience

SOFTWARE DEVELOPMENT MANAGER; WEALTHSIMPLE, TORONTO | AUGUST 2023 - JANUARY 2025

- Led two teams (9 developers, 1 manager) to deliver Wealthsimple's self-directed investing platform (**TypeScript, React Native, Node**), including stock/ETF trading and account management
- Achieved 90%+ team satisfaction (Pulse surveys) with mentorship, collaboration, and a strong focus on alignment
- Worked closely with cross-functional partners in design, product, and data as well as various levels of leadership
- Demonstrated a high degree of focus on building high-quality software through fast software delivery cycles
- Reduced on-call response volume by 30% by improving incident workflows and addressing recurring issues
- Spearheaded the migration of asset pricing systems to a simpler model (**Kafka, Node.js, Redis, GraphQL/Apollo**), halving data latency and simplifying system architecture

ENGINEERING MANAGER; KONRAD GROUP, TORONTO | APRIL 2015 - JULY 2023

- Progressed from intern to Technical Director, managing teams to deliver over 20 web applications, including:
  - Marketing Websites
  - E-Commerce Experiences
  - Customer & Employee Portals
  - Personal Banking Applications
- Spearheaded internal business initiatives in training, outreach, product development, cybersecurity, performance evaluation, and automation
- Designed and implemented a set of "core components" for CMS projects used in more than 10 websites today

Prior to being an engineering manager, I held several IC positions and still write code almost every day.

Select Projects

I've built a lot of stuff. Below is a select few projects I am proud of, but I'd love to tell you more about other work!

UNIFIED QUOTE DELIVERY | 2024
Replaced a complex system to deliver price data for financial assets like stocks or cryptocurrency. I proposed, designed, led, and contributed code (Java, Kafka, Node, GraphQL/Apollo, React Native) to the solution. Quotes are now delivered using a shared "Quote" data model and **Kafka** stream consumed by a websocket interface that broadcasts updates to clients via **GraphQL subscriptions**. Includes a frontend SDK in **TypeScript** and **React**. This results in more consistent pricing that is delivered faster, as well as the removal of thousands of lines of code.

AEM IMPLEMENTATION FOR LARGE AUTOMOTIVE OEM | 2022 - 2023
Led a team (8) to launch a marketing website on **Adobe Experience Manager**. This included the implementation of an authenticated "owner's portal" application with **Auth0** as an IDP, purchases through **Stripe**, an **Azure** and **Redis**-powered queue (similar to Ticketmaster) and integrations with vendors (recalls, vehicle data, accessories, warranty).

ZERO KELVIN: REMAKE OF A 1992 ARCADE GAME | 2023 - PRESENT
See the devlog here. Recreating Taito's 1992 arcade game: Ice Cold Beer entirely from scratch, including custom fabrication, software, design. Display in **Godot**, powered by a Raspberry Pi and a love for a time before the internet.

Skills & Interests

Primary implementation strengths: Frontend with **React** (incl. native), **JS/TS**. Backend using **Node**, **Python**/**Django**, **Java**, and **Ruby**, but I am comfortable with any language. CI/CD: **GitHub Actions, K8S, AWS, Redis, Kafka**, and most of the popular **databases**. I am a skilled problem solver and am capable of using a variety of tools, technologies, and systems to build systems that work!

Education

McMaster University, Hamilton ON — Bachelor of Engineering Society, Software. *Minor: Peace Studies.*