

# Samy Zarour

Fractional CTO

📍 Dubai, UAE    ✉ zarour.samy@gmail.com    🌐 samy.xyz    📄 SamyZarour    🗣 SamyZarour

## About Me

---

Technical executive with **10+ years of experience** building and leading teams for both **AI and Full-Stack** products. **Founded and scaled a startup as CTO**, and have since led cross-functional teams delivering scalable, production-grade systems. I bring rigor to **engineering quality**, streamline processes and **communication**, and bridge the gap between **technical and business stakeholders**.

## Experience

---

### Director of Engineering, NPI

*Enterprise platform for procurement intelligence and vendor analysis*

(Remote)

Dubai, UAE

Feb 2025 – present

- Lead two engineering teams across **AI and Full-Stack**, tailoring and balancing processes that are best suited to each. **Fast-paced AI** prototyping, along with **safe and stable Full-Stack** apps that are client-facing.
- Designed a **lean AI adoption strategy**, enabling **quick adoption** of the latest trends in AI **without costly lock-in or refactors**, keeping the platform current and competitive.
- Spearhead **AI-assisted development practices** across the organization, ensuring advancements are communicated, adopted, and **enforced weekly** across all teams.
- Drove **SOC 2 compliance** to completion, implementing **security controls and audit processes** across the engineering organization.
- Initiated, architected, and enforced a **blue/green deployment pipeline** and an **end-to-end testing framework**, significantly **reducing deployment risk** and ensuring **production reliability**.
- **Bridge the gap between business and technical teams**, while also architecting new features, managing deployment flows, and always **identifying limits in our processes to improve**.

### Lead Software Engineer, ZEPZ

*Cross-border remittance platform for international money transfers*

(Remote)

Montreal, Canada

Mar 2023 – Sept 2024

- Identified a high-impact limitation in our financial processes **within my first month**, built a POC in one sprint, and **led the technical architecture** for an automated reconciliation system, **saving millions annually**
- Designed a **proactive alerting system** monitoring bank balances across countries, **enabling operations teams to act before disruptions**. Reducing bank fees, incident handling costs, and improving customer experience

### Co-Founder & CTO, HookMotion

*Automated data collection for table games using computer vision*

(Remote)

Montreal, Canada

June 2019 – Mar 2023

- Built a **real-time computer vision platform** for casino table game monitoring, capturing bet values, round outcomes, and cheating probability. **Developed a POC in 12 weeks that led to a multi-million dollar deal**
- Hired, mentored, and led a **team of 7 engineers**, establishing an **async-first culture** with a clear flow from **KPIs to epics to stories to tickets**, maximizing **developer focus** and **stakeholder visibility**
- Built a testing framework that **made nondeterministic CV pipelines reliable, fast, and regression-proof** on every PR. Allowing us to dynamically train the latest **state-of-the-art models** on our data and adopt them into our system while **minimizing risks of regressions**
- Led Design Thinking workshops with casino clients in **English, French, and Spanish**, translating **complex technical capabilities** into actionable **business solutions**

## Software Engineer, IBM

Toronto, Canada  
July 2018 – June 2019

- Selected for IBM's Watson Machine Learning Core Team, working on **resource management, computation pipelines, and data processing optimization** for the platform serving over **100 million users** worldwide
- Led a team to win **1st place** in IBM's 9-month **Design Thinking Jumpstart**, building a secure digital identity system for orphanages using **Blockchain and NLP** to digitize and protect children's sensitive documents
- Identified a recurring pattern of **dependency conflicts** slowing down the team, **took the initiative** to audit and modernize critical packages across the product, **eliminating recurring blockers**

## Software Engineer, Ericsson

Montreal, Canada  
May 2015 – Dec 2017

- Delivered a new smart city POC for Montreal **every month**, spanning diverse domains from **NFC-based digitized metro cards** to **electric grid data visualization** with **Elasticsearch**
- Built a broad technical foundation through rapid rotation across **IoT, NFC, data visualization**, and emerging technologies, with a **fail-fast prototyping mindset**

## Community and Research

---

**Lead Instructor (Volunteer)**, KidsCODEJeunesse

Jan 2015 – present

*Teaching coding to elementary schools across Montreal*

## Projects

---

**TalkBack:** Interactive podcast you can interrupt, question, simplify, and resume through voice

**Dono:** Motivate yourself through bets with yourself, friends, or groups

**Wander:** AI powered itinerary planner that also provides an audio walking tour of a city

**Immersed:** Language learning app that teaches you words you actually use by integrating to your keyboard

## Tools

---

**Languages:** TypeScript, Python

**Frameworks:** ReactJS, NestJS, FastAPI, TurboRepo

**Databases:** PostgreSQL, MongoDB, Pinecone, ChromaDB, Prisma

**Infrastructure:** AWS, GCP, Docker, Terraform, Grafana

**AI/ML:** TensorFlow, LangChain, LangGraph

## Education

---

**BSc** **McGill University**, Computer Science

## Languages

---

**French:** Native (C2)

**English:** Native (C2)

**Spanish:** Fluent (C1)

**Arabic:** Fluent (B2)