



Professional Experience

01/2021 - 08/2024 [RISC](#) / University of Chicago Reasearch Lab

Lead Full Stack Engineer (01/2023 - 08/2024)

Full Stack Engineer (01/2021 - 01/2023)

remote - Chicago, IL

- Led the development of a GPS monitoring "decision aid" system for the Cook County Sheriff's Office, **replacing over 7000+ years of jail time for more than 15,000 participants** as a humane alternative to incarceration. Reduced **80%** of spurious alerts by applying vetted algorithms.
- Architected and implemented a scalable **microservices** ecosystem using **Elixir**, **Golang**, **RabbitMQ**, and **React** to process approximately 3,500 traces per minute in real time, integrating data from multiple third-party providers. Developed robust **REST APIs**, **GraphQL** endpoints, and an efficient message queuing system to enable smooth communication across services and enhance system reliability.
- Optimized system performance by applying various data store systems, including **AWS Timestream**, **Redis**, and **PostgreSQL**, for real-time calculations and high data throughput (5+ million traces daily).
- **Mentored a Junior Engineer** by strategically delegating tasks and fostering their growth while collaborating with a data scientist to develop user-centric solutions aligned with stakeholder needs.
- Delivered a scalable, fault-tolerant platform that met demanding operational requirements using **Convex** (AWS EKS / Terraform wrapper) and **Datadog**.

02/2020 - 12/2020 [MACK WELDON](#)

Backend Software Engineer

remote - New York, NY

- Developed and launched a dynamic "Loyalty Program" in **Ruby on Rails**, providing flexible rule management based on spending habits for customer tiering.
- Built and integrated backend logic to apply tier-based perks and discounts at checkout, significantly enhancing the customer experience and increasing retention rates.
- Engineered a new **MySQL**-based data model to capture key customer metrics, ensuring legacy data migration with zero downtime.

08/2019 - 01/2020 LUNCHTIME LABS

Software Engineer Apprentice

remote - New York, NY

- Created and updated UI elements in Mack Weldon's Shopify store using **Liquid**, **Javascript**, and **HTML/CSS**
- Used **Puppeteer** to complete customer purchases for hundreds of stuck checkout sessions that were about to expire, saving tens of thousands in revenue.

Summary

- **5+ years** coding professionally
- Full Stack Development in multiple frameworks
- Cloud architecture and microservices experience
- Agile, Test Driven Development, Trello/Linear
- Native fluency in English, Spanish, French

Languages & Frameworks

- Elixir
- Golang
- Python
- Javascript / Typescript
- Rails
- Phoenix
- Next.js
- React.js

Recommendations

"Mateo is a rock star! He was lead developer on a high-stakes project and was integral to our project's success. He had to wear several different hats to keep the many pieces of our application moving and get the most out of a relatively small dev team. Whenever technical hurdles presented themselves or complex features needed implementation, Mateo devised creative solutions and realistic work-arounds. He successfully balanced technical debt and progress on building features to make sure we moved quickly but still had a reliable product with minimal downtime. He's easy-going, personable, and all-around great to work with. I'd jump at a chance to work together again!" - Ben Thevathasan, Lead Data Analyst at University of Chicago / RISC

Education & Certications

- Machine Learning Certificate, Cornell 2021
- Sketch Master, sketchmaster.com 2020
- MA - Mills College, 2015
- BA - Berklee College of Music, 2009