

# MARCO PEREZ

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## EDUCATION

### UNIVERSITY OF MICHIGAN

Ann Arbor, MI

*Major in Computer Science, Minor in Statistics*

Class of 2021

- **Blockchain at Michigan, Cohort Member:** Conduct research in scalability solutions, infrastructure for the blockchain space, and decentralized applications with beneficial use cases. Worked with industry partners to build blockchain applications to improve upon current processes.
- **Michigan Boxing Club:** Competed and traveled around the US with the team. Followed rigorous training program and diet.

## EXPERIENCE

### THOMSON REUTERS

Ann Arbor, MI

Software Engineering Intern

May 2020 – Aug 2020

*Honing my skills and making real-world impact alongside a team of experienced full time developers*

- Worked as a Full Stack Engineer for the OnBalance and Onvio teams. Wrote, tested, migrated and/or maintained 25+ new features and bug fixes for both web-apps.
- Developed proficiency with the Angular web framework. Used HTML/CSS, TypeScript and JavaScript when working on Front-End Tasks and C on Back-End Tasks. Acquired a deep understanding of Agile Software Development and version control using Git and ADO.
- Released production level code on a weekly basis, reducing the ‘average days for story-completion’ metric by 17%.

### CENTER FOR SMART INFRASTRUCTURE FINANCE

Ann Arbor, MI

Full Time Research Assistant

Apr 2019 – Sep 2019

*Integrating blockchain technology into complex systems and city infrastructure*

- Developed a technical training program for future researchers that taught the hyperledger fabric framework (IBM’s blockchain framework). Launched the program for a cohort of 5 other team members, resulting in 30% faster learning.
- Researched blockchain applications for deployment in urban areas, using cost benefit analysis to gauge where blockchain integrations were most needed. Found primary use cases in water distribution, transportation, and road systems.
- Used sensor data within a newly created blockchain network to monitor bridge health, using regression analysis to determine a variety of key metrics including the vibrations, weight of different loads, and creating risk scores.

## TECHNICAL PROJECTS

### Social Media Web App(Python/Flask, React JS, HTML)

*Database-backed Instagram clone implemented with client-side dynamic pages and a REST API. Client application written in JavaScript that runs in the browser and makes AJAX calls to the REST API.*

### Multi-Threaded Program (C++)

*Concurrent program that issues and services disk requests. Multiple requester threads and one service thread are spawned. Used monitors to provide process synchronization.*

### Minesweeper Simulator/Solver (Python)

*Command line version of the classic minesweeper game that accepts user input in order to play. The solver makes use of linear and logistic regression alongside probability analysis to optimize completion rates.*

**Budget Tracker(Java)** *Used Java, Android Studio, and the Swing framework to create an Android application for keeping track of your budget. This app allows users to add transactions by specifying a category, name, and monetary value. Transactions and budget can be looked at by category or an overall total based on date added.*

## SKILLS AND ADDITIONAL

- **Programming Languages:** C++, Java, Python, HTML/CSS, JavaScript, TypeScript, SQL, Angular, React, Flask
- **Tools and Technologies:** Visual Studio Code, IntelliJ IDEA, Git, Vim, Android Studio
- **Operating Systems:** macOS, Windows, Linux
- **Fitness Brand (marco\_p\_fit):** Providing educational videos and descriptions on Instagram to 2,500+ followers.