

Martin Charles

(440) 606-6777
martincharles07@gmail.com
github.com/0xcaff

Building software things.

Education

Graduating **Bachelor of Science, Computer Science**, ROCHESTER INSTITUTE OF TECHNOLOGY, Rochester, New York.
Fall 2019

Work Experience

Summer 2019 **Software Engineer**, ASANA, SF.
iOS.

Spring 2019 **Software Engineer, Android**, COINBASE, SF.

- Built and maintained on-boarding flows and payment rails in the Consumer Android app enabling international expansion.
- Built infrastructure for integration testing hard-to-reach states of the app like like onboarding and payment failure cases.
- Refactored revenue critical paths making them testable, more stable and resilient to change
- Participated in discussions about the current state of the app and how we could improve it while sharing more code across platforms.
- Onboarded engineers to team, codebase and Android platform

Summer 2018 **Summer Technology Analyst**, CITI, NYC.
Worked on team providing KYC to institutional clients (> \$10MM). Eliminated a time consuming manual part of KYC by building a tool to receive and process internal emails. Gives Ops teams more time to focus on important parts of KYC.

Summer 2016 **Software Development Intern**, HYLAND SOFTWARE, Cleveland, Ohio.
& 2017

- Developed a Windows Virtual File System for ShareBase, an Enterprise File Sync and Share solution. Allows accessing files from any Windows program, streaming and caching required parts of the file from the backend file service as needed. Built using C# and Dokan.
- Prototyped an application using the blockchain to verify the integrity of access logs and presented to team.
- Researched blockchain technology and presented findings to directors of the R&D department.
- Developed a library to parse and extract information from PDFs. Collaborated with another intern. Built using C++.
- Implemented Jump-to-Bookmark support for the PDF viewer in OnBase's Windows Phone App using the library mentioned above. This made navigating large documents quick. Shipped in OnBase 17.
- Developed PowerShell Desired State Configuration scripts to reduce onboarding time.

Projects

forte, tool for accessing personal music collections, github.com/forte-music.

- Makes your curated collection of audio files searchable and streamable through a self-hosted web service.
- Deciding features, designing them, and implementing them with other contributors.
- Built with Rust, React and GraphQL

wordsearch solver, A fast, interactive wordsearch solver github.com/0xcaff/wordsearch.

- Designed and implemented a trie based solving algorithm.
- Built with React, TypeScript, CSS Paint API, Firebase.

dht-crawler, BitTorrent DHT crawler github.com/0xcaff/dht-crawler.

- Collects metadata about peers in the BitTorrent DHT.
- Implemented message parsing, kRPC protocol and DHT message routing outlined in BEP005.
- Built with Rust, Tokio Runtime and d3 + ObservableHQ for data visualization.

Skills

Languages Rust, Swift, Java / Kotlin, JavaScript (ES7), Python

Platforms Web Technologies (HTML, CSS and Browser JavaScript), Android (Notifications, Services, Data Binding, RxJava), Blockchain (Ethereum Private Network, Solidity)

Tools Git, GraphQL, React