

# Marc Bernstein

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## Education

### Boston University

BA Computer Science

2016 – 2020

Boston, MA

## Experience

### Northeastern University

Research Software Engineer

Sept 2021 – Present

Boston, MA

- > Developed a monitoring tool in GO on a cluster of servers to notify users that they were exceeding the set resource limit improving proficiency, speed, and reliability of servers.
- > Developed an API in GO to fetch and consolidate data from a private docker artifactory. API was utilized in user-facing applications allowing customers to see docker containers available to them loading them automatically.
- > Consulted with researchers about their software requirements. Tasks ranged from helping get started with TensorFlow to writing code helping make algorithms be more efficient.

### John Hancock

Full-Stack Software Engineer

June 2020 – Sept. 2021

Boston, MA

- > Member of the START rotational program providing opportunity to move between different team environments.
- > Migrated existing applications to Azure Kubernetes making maintenance and organization of company's applications and tools easier to maintain. Migration required refactoring code bases, creating docker containers for all existing applications, and setting up/testing connections to new databases.
- > Modernized mainframe applications to cloud-based applications.

### Fidelity Investments

Technical Intern

June 2019 – Aug. 2019

Boston, MA

- > Part of the blockchain incubator tasked with researching and developing proof of concepts with emerging technologies for cryptocurrency/blockchain.
- > Developed a proof of concept showing off emerging technologies like Zero Knowledge Proofs.

## Projects

### CPUBoundBot

Tools Used: GO, Ansible, ConcourseCI

- > Company monitoring tool to monitor CPU usage on server cluster and notify users if they have gone over CPU limit. The tool lives on the company's on-premise server cluster.

### Match Display

Tools Used: GO, Heroku, Typescript, React.JS, Github Actions

- > Developed a frontend site built in React.js using Typescript and a backend API in GO that will collect all in-progress tournaments from a user on the site challonge.com and display pending matches.

### Implementation of the Raft Protocol

Tools Used: GO

- > Implemented the Raft distributed system protocol for a basic key-value store using the GO programming language.

## Skills

**Programming** Python, Typescript, GO, C#, Java, Javascript, C/C++

**Tools/OS** Docker, Concourse CI, Heroku, Containerization, Linux, Bash, Git, Github, RESTful APIs, Postgress SQL, Azure Kubernetes

**Developer Skills** Microservice Design, Backend Development, Webapp Development, Agile, Frontend Development