# John Furlong

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#### EDUCATION

## **Bachelor of Computer Science**

University of Colorado, Boulder

Aug 2016 - Dec 2020

CS GPA: 3.5 / 4.0

**SKILLS** 

**Programming Languages** JavaScript | TypeScript | Python | SQL | C++ | C | Bash

React.js | Next.js | Node.js | Express.js | Redux | Redux-Saga | React Native

**Frameworks Tools** Git | MySQL Workbench | MongoDB | Docker | JIRA | AWS EC2/S3/RDS | Xcode

#### EXPERIENCE

**Western Union** July 2021 - Oct 2022

Software Engineer Denver, CO

• Developed, implemented, and tested new stories for the core platform.

- · Regularly addressed production bugs and improvements in existing services using React.js/TypeScript, Redux and Java.
- Experience working with relational (PostgreSQL) and non-relational (MongoDB) database models. These services were containerized using Docker to ensure scalability of the system design.
- Test-driven development and monitoring using Jest and Splunk, respectively.

**Phia Labs** Sep 2020 - Jan 2021

Software Engineer Boulder, CO

- Implemented administrative functionalities for a client, written in PHP.
- Collaborated closely with client to deliver sprints on time.
- Increased customer engagement, sales, and overall performance monitored using WordPress analytics.

Rosetta Hall June 2019 - Jun 2021

Boulder, CO Server

- Worked 30 hours per week as a full-time student.
- Required strong communication and multitasking in a fast-paced work environment.

### NOTABLE PROJECTS

**Habit Tracker** Nov 2022 - Ongoing

Full Stack Developer

% https://habit-tracker.com

- Independently built an open-source web application that tracks users habits, aiming for simplicity and accessibility. Designed to help people stay consistent when forming new habits or breaking old ones.
- User interface and REST API developed using React.js and Node.js / Express.js, respectively.
- Used Next.is / MySQL optimization techniques to reduce calculation times for a fault-tolerant API that can serve thousands of users per second.

MyPortfol.io Jan 2021 - Jun 2021

Full Stack Developer

% https://my-portfol.io

- Collaborated with a small team to build a full stack application for hosting users' personal portfolios. The app was designed specifically to help new grads and freelancers.
- Implemented server-side authentication system using Passport.js (Node.js).

## **Pathfinding & Sorting Visualizers**

Dec 2020 - Jan 2021

Full Stack Developer

% https://jfur1.github.io/pathfinding

- Independently built an open-source web application that performs visualization for various pathfinding and search algorithms.
- Allows users to simulate pathfinding algorithms after drawing walls, in order to help understand benefits and bottlenecks.
- Users may slow down the simulation speed to better understand the dynamics of different algorithms.

Forte Music App Dec 2019 - May 2020

Full Stack Developer

% https://github.com/jfur1/cs-project

- Collaborated with a team of 7 to build a full stack application for connecting local music teachers and students.
- Implemented user registration & authorization endpoints in the REST API (PostgreSQL), while integrating with our front-end using jQuery.
- Implemented reset password and authentication middleware using JSON Web Tokens.