

# John Furlong

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<https://github.com/jfur1> | <https://www.linkedin.com/in/jfur1> | <https://johnfurlong.io>

## 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  
**Frameworks** React.js | Next.js | Node.js | Express.js | Redux | Redux-Saga | React Native  
**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

Server

Boulder, CO

- 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.io>

- 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.js / 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-portfolio.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.