

John Farrell

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Software engineering focused computer science at Brown University with over one year of professional experience in developing software and web-based tech solutions. Experience working in teams of 5-8 members on scalable applications.

WORK EXPERIENCE

Backend Engineering Intern

May 2023 – Present

Paidly, Rochester, NY

- Worked with Turborepo, PostgreSQL with GraphQL, and Node.js to create an efficient backend application
- Contributing to the development of backend applications for an employer student loan repayment platform
- Wrote X tests building to over 95% test coverage for Client-REST API

Software Engineering Intern

December 2022 – January 2023

Sharp Notions, Fairport, NY

- Developed a dynamic loan repayment feature that gave employers more flexibility in offering their employees benefits
- Upgraded token authentication, GraphQL schemas, and APIs for database connection, resulting in better security and data handling
- Enhanced the admin dashboard functionality to include more navigation options, improving overall admin-side efficiency

Frontend Developer Intern

June 2022 – August 2022

Sharp Notions, Fairport, NY

- Programmed data table paging and filtering on the admin site, resulting in more effortless navigation and efficient data management
- Enhanced client file uploading functionality to streamline the process for users and improve system efficiency
- Created a dynamic onboarding web wizard to improve user engagement and boost user retention and adoption
- Implemented UI/UX designs from Figma, resulting in a more polished and visually appealing user interface

INDEPENDENT PROJECT EXPERIENCE

Collegy.org ([Demo](#))

December 2022 – January 2023

- Developed Collegy using the MERN (MongoDB, Express, React, Node) stack with TypeScript and Python
- Designed and implemented an algorithm that utilized the College Scorecard API and user input to recommend universities to Collegy users, optimizing the algorithm to parse through 1,000,000+ data points efficiently
- Developed a RESTful backend API with ExpressJS, which included Google OAuth 2.0 site authorization and Redux for state management
- Implemented the UI/UX design from Figma, which included SVG manipulation and animation

Stock Data Analysis ([GitHub](#))

November 2022

- Conducted fundamental analysis on over 6,000 stocks by creating and applying various algorithms in Python
- Utilized web scraping Python functions optimized for resource-friendly gathering to parse over 100,000 data points
- Implemented multiple APIs and a MongoDB database to gather and query relevant data for the analyzed stocks
- Hosted back-end services and UI on Heroku's platform, providing a powerful and user-friendly experience

EDUCATION

Brown University

Sc.B. Computer Science
Certificate in Data Fluency
4.00/4 GPA
Providence, RI – May 2026

Relevant Courses:

- Program Design with Data Structures and Algorithms

SKILLS

Languages (by proficiency):

- Advanced: Java, Python, JavaScript, TypeScript
- Proficient: Go, Ruby, ReasonML, Racket, PHP

Frameworks:

- Ruby on Rails, Next.js, React.js, Node.js, Chakra, Bootstrap

Databases:

- MongoDB, PostgreSQL (with GraphQL), MySQL, SQLite, Firebase

Tools and Platforms:

- Figma, Docker, Insomnia, Git, Heroku, Postman

LEADERSHIP

- Varsity athlete at Brown University
- Computer Science Club President at Fairport HS (2021-2022)