Jay Spencer

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Skills

Python3, JavaScript, HTML5, CSS3, React.js, Redux, Express, Flask, Sequelize, SQLAlchemy, PostgreSQL, Selenium, Pytest Heroku

Projects

Mountaintop   live site | github

HTML5 , CSS3 , JavaScript , React / Redux , Python3 , Flask , SQLAlchemy, Heroku, Selenium, Pytest

A mountain-themed AirBnb clone allowing users to host, book, and review getaways.

- Leveraged **React's Context API,** enabling users to dynamically filter search results based on varying criteria.
- Implemented media queries to create a **mobile friendly UI/UX** so users may browse from their phone.
- Devised test plans for **API testing** to validate the functionality of backend routes.
- Independently developed an **automated regression test suite** using a combination of **Selenium** and **PyTest**.

La Table   live site | github

HTML5 , CSS3 , JavaScript , React / Redux, Python3, Flask, SQLAlchemy, Heroku

An OpenTable clone where users can book reservations for restaurants and review dining experiences in the LA-area.

- Collaborated with a **team of 4** in an **Agile** environment implementing a kanban board to organize tasks.
- Implemented the **Python** package **Faker** to seed tables with fake data in a **PostgreSQL** database, providing content for users to explore within the app.
- Established relationships between related tables in **SQLAlchemy** allowing users to view reservations.
- Designed **Flask** RESTful routes to serve data from a **PostgreSQL** database to a user with a **React** frontend.

Cinemaroll   live site | github

HTML5 , CSS3 , JavaScript , Pug , Express, SQLAlchemy, Heroku , Selenium, Pytest

A movie-themed GoodReads clone allowing users to review movies and categorize them in lists.

- Utilized **VanillaJS** to debounce API calls and dynamically render search results, preventing unnecessary calls to the backend.
- Utilized **Sequelize** to query a **PostgreSQL** database and deliver data from through an **Express** backend.
- Created RESTful routes using **Express**, connecting to a **Pug** frontend, while utilizing **PostgreSQL** to deliver data for client interfaces.

Experience

Graduate Research Assistant | Spring 2018 - Summer 2021 | University of Alabama in Huntsville

- Created a workflow with **Python** implementing pre-existing tools to automatically design *Streptococcus pyogenes* (Strep A) vaccine candidates.
- Formulated **regular expressions** in **Python** to extract protein sequences from > 100 files containing data on Strep A isolates.
- Developed a **Selenium** script to automate the submission of protein sequences to a web server and collect the results. The script **increased efficiency** by reducing the time to collect the data from hours to minutes.

Education

App Academy | Winter 2022 | New York, NY

Immersive software development course with focus on full stack web development.

University of Alabama in Huntsville | PhD in Biotechnology Science & Engineering | Summer 2021 | Huntsville, AL

University of Tennessee Knoxville | BS in Biochemistry Cellular and Molecular Biology | Fall 2017 | Knoxville, TN