Jay Spencer

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Skills

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

Projects

Query   live site | github
HTML5 , CSS3 , JavaScript , React / Redux, Express, NodeJS, Sequelize, Heroku

A Quora clone that allows users to post questions and answer questions from otter users

- Implemented **React / Redux** to store state, decreasing API calls and user load times.
- Utilized eager loading on an **Express** backend to minimize **Sequelize** queries.
- Devised logic for conditional rendering of **React** components based on user.
- Secured user information by incorporating **Bcrypt** password hashing and **JSON Web Token** to protect routes by verifying user credentials.

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 to dynamically filter search results based on user-defined criteria.
- Employed **SQLAlchemy** to query a **PostgreSQL** database and deliver results with **Flask** backend to a **React** frontend.
- Devised unit tests with **Pytest** and **Selenium** to automate testing of application functionality.

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 for the organization of tasks
- Implemented the **Python** package **Faker** to seed tables with fake data in a **PostgreSQL** database.
- Established relationships between related tables in **SQLAlchemy**.
- Designed **Flask** RESTful routes to serve data from a **PostgreSQL** database to a user with a **React** frontend.

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..
- Used SSH to remotely access the Alabama supercomputer to submit >100 jobs for molecular dynamics simulations with **AMBER** .
- Developed a **Selenium** script to automate the submission of protein sequences to a web server and collecting the results. The script **increased efficiency** by reducing the time it would take to collect the data from hours to minutes.

Food's Service Worker | Spring 2013 - Summer 2016
The Dollywood Company

- Delivered fast and friendly **customer service** to park guests ensuring customer satisfaction.
- Served > **100 customers daily** as a cashier communicating with a diverse clientele.

Education

App Academy | Winter 2022 | New York, NY
Immersive software development course with focus on full stack web development.

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

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