Maggie Yan

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SKILLS

Python, C /C++, Java, RISC-V, Ruby, Ruby on Rails,PostgreSQL, JavaScript, Mongoose, MongoDB, SQL, SQLite3, Webpack, jQuery, Git, React, Redux, Node.js, Express.js, p5.js, HTML, CSS, Heroku, AWS

PROJECTS

Pintellect (Rails, ReactJS, Redux, PostgreSQL) live | github

An online visual discovery engine inspired by Pinterest and my love of art and science.

- Handled data validation and user authentication on the backend, protecting users from unauthorized access.
- Leveraged polymorphic associations to reduce queries and optimize storage, yielding efficient retrieval of media.
- Implemented custom search algorithms using Active Record as well as Redux state, allowing users to filter for specific boards and save pins to them.
- Designed a frontend algorithm to resize randomly generated images onto a grid while maintaining aspect ratio and page responsiveness, which was used throughout various pages

Menutube (MongoDB, Mongoose, Express.js, ReactJS, Node.js) live | github

A video sharing platform that allows users to plan their meals based on nutrition needs, diet preference and ingredients on hand.

- Designed an algorithm and implemented Mongoose in the backend to manage multiple requests at once while maintaining normalized state for efficiency of data access.
- Implemented a multipurpose React Component using the Drag and Drop API to transform any content to be dragged into and stored in a calendar interface that we created for meal planning.
- Established a front end connection to AWS via AWS-SDK to organize video uploading for recipe creation, retrieving a certified url for easy backend storage.

AlgoViz (JavaScript, p5) live | github

A visualizer that shows how algorithms find paths from a point of origin to a destination based on graph theory.

- Utilized Dijkstra's algorithm, A*, BFS and DFS to find a path from any start point to a destination.
- Developed customized Priority Queue data structure, implementing Vertex and Edge classes to mimic graph theory.
- Computed heuristic cost of A* algorithm by utilizing octile distance to increase efficiency of pathfinding.

EXPERIENCE

Graduate Assistant

Baruch College *October 2017 - August 2019*

- Extracted, cleaned and analyzed data from company's annual 13-DA filings to research how hedge funds can influence a company's strategy.
- Lead TA who was responsible for proctoring exams, correcting exams and aggregating data.

Fortress Trading Competition 2014

- Used R to pull financial data from Yahoo Finance and analyze via various statistical models.

EDUCATION

Web Development - App Academy *Fall 2020*

Immersive software development course with a focus on full-stack web development, which entailed 1000+ hours of coding.

Stanford University - Data Structures (5 credits), Discrete Maths and Theory of Computation (5 credits)

UC Berkeley - Computer Architecture (Machine structure) (4 credits)

Harvard Extension School - Multivariable Calculus (4 credits), Linear Algebra (4 credits)

Baruch college - M.S Finance

- M.S Accounting

University of Auckland - B.com Economics and Finance