Yong Bin (Ben) Gao

(646) 203-6750   ben.gao25@gmail.com   Portfolio   LinkedIn   Github   AngelList

Skills

JavaScript, React.js, Redux.js, D3.js, Recharts.js, Ruby, Ruby on Rails, HTML5, CSS3, Git, PostgreSQL, jQuery

Projects

Greens (JavaScript, React / Redux, Ruby / Rails, HTML, CSS, Recharts.js, PostgreSQL)   Live Site | Github
Web application, inspired by Robinhood, that displays companies' stock prices and allows trading of virtual stock shares.
- Optimized SQL queries to efficiently access data by separating table into partitions, reducing client-side computation.
- Customized CSS in Recharts library to accurately present stock price data over different timeframes on charts with tooltip.
- Leveraged RESTful APIs to maintain up-to-date user and stock price information in Redux store/ component state.
- Kept user and stock price information in Redux store/component state up-to-date by leveraging RESTful API.
- Reduced network latency and database tables by locally storing price data in component state.
- Ensured user privacy and data protection with authentication pattern that limits page navigation with React Router and protects password with BCrypt hashing function.

Electricity Energy Generation (JavaScript, D3.js, HTML5, CSS)   Live Site | Github
Web application with visualizations of electrical energy generated by year and energy source for all US states.
- Implemented D3.js to enhance the presentation of energy information with the geographical heat map, sunburst chart and stacked bar chart.
- Developed a data formatting algorithm that parse and analyze energy information into objects structured with hierarchy suitable for different types of chart.
- Manipulated DOM elements to dynamically update and visualize different datasets with event listeners based on user input.
- Engineered seamless transition between datasets to allow control over the subset of data to display.

Experience

NYS Department of Transportation
Professional Engineer I   Nov 2018 - April 2019
Assistant Engineer   Sept 2015 - Oct 2018
Junior Engineer   Aug 2014 - Aug 2015
- Created 3D geometric design, using MicroStation's InRoads Suite, of a highway interchange ramp to improve traffic flow with land-use constraints.
- Performed traffic analysis within 2-mile radius to quantify the degree of improvement between current and projected level of services.
- Earned employee recognition award, as part of a team, for completing an accelerated maintenance project on schedule and within the budget of 5 million dollars.
- Corresponded with stakeholders to maintain project progression by identifying issues and resolution strategies.
- Supervised and trained 2 engineers to produce construction cost estimates, contract plans and vehicular safety analyses.

Education

App Academy   April 2019 - June 2019
Immersive software development course with focus on full stack web development.

Rensselaer Polytechnic Institute
Bachelor's & Master's in Mechanical Engineering   Aug 2008 - Dec 2012