

PHONG NGO

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[Website](#)

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[Angellist](#)

New York / New York

SKILLS

React.js, Ruby on Rails, JavaScript, jQuery, Ruby, Redux, SQL, Git, HTML5, CSS3, Three.js

PROJECTS

unLeashd

[Live Site](#) | [Github](#)

An app to track which dogs users have petted built using Ruby on Rails, JavaScript, React, and Redux.

- Reduced screen flickering and React.js Component rendering time by utilizing Redux Store Normalized Global State in different presentational components, and not refetching redundant information.
- Created RESTful routes in Rails Controllers and queries for PostgreSQL database with JQuery Ajax calls to fetch user data and display the user's friendships, profile picture, dog checkins, and the pets index.
- Queried dynamically for subsets of data from database on index GETs to reduce load times and reduce database workload.
- Accounted for global state changes from natural flow of user navigation and also unexpected hard page refreshes by periodically manually testing and correcting global state to be a consistent shape throughout component switches.
- Filtered backend responses using JBuilder gem to increase efficiency within frontend reducers by returning relevant information in the json response in the correct shape for less required parsing within the reducer.
- Deployed to Heroku and organized images by utilizing Rail's helper methods for asset pipelines.

Fortune Couple

[Live Site](#) | [Github](#)

An app to calculate compatibility of users from user preferences, using MongoDB, Express, React.js, and Node.js

- Chained success callbacks for asynchronous MongoDB promises using mongoose models to query for user's associated data.
- Built a backend using Express.js, Node.js and used Axios calls to return the json response for React components to display.
- Enabled user login with JavaScript web tokens in GET Request headers and Passport.js authentication tools.
- Calculated user's Zodiac with utility tools by leveraging the sortability of ISO 8601 Datetime Format.

Soccer Fight

[Live Site](#) | [Github](#)

A fighting game in which the user is a soccer ball and shoots lasers, built using JavaScript and Three.js

- Presented a visually appealing UI using CSS classes and HTML DOM Element manipulation.
- Created collision detection using Three.js scene and camera manipulation to trigger sound effects and state changes.
- Used RequestAnimationFrame to change state of objects which allowed smooth gameplay and fast repainting of the canvas.
- Created classes for Football, Soccerball, and Lasers to keep code neat and separate the concerns.
- Pushed Lasers in an array when a laser is fired and popping Lasers off the array while clearing the mesh of the Laser from the scene as it leaves the screen to remove lag and over memory consumption.
- Implemented responsive canvas resizing through dynamic refresh frames within asynchronous rerendering loop.

EXPERIENCE

Traffic Engineer

Town of North Hempstead, June 2018 - Nov 2019

- Created 120+ new rescissions and adoptions in 2019 within the Town of North Hempstead's Traffic Code, and supervised the Town's Highway installation and implementation of the new law in the field.
- Proposed and reviewed Traffic Ordinances for the Town Code with Town Board members.
- Coordinated with the Town Attorney's office and Town Clerk's office to adopt and rescind Traffic Ordinances.
- Prepared and advised the Town Board on how to respond to constituent requests for monthly Town Board meetings.

Signals Timing Engineer

New York City Department of Transportation, Oct 2016 - May 2018

- Designed 200+ Signal Operations for new and existing Traffic Signals for New York City's 18,000 Traffic Controllers.
- Programmed ASTC Traffic Controllers to reduce traffic congestion for 600+ vehicles per intersection during rush hour.
- Updated databases for Transit Signal Priority for the Metropolitan Transportation Authority (MTA) and Pedestrian Safety Projects for New York City's Vision Zero initiative for New York City's 2 million daily commuters.

EDUCATION

App Academy - Immersive software development course with focus on full stack web development (Winter 2019)

Pennsylvania State University - BS - Electrical Engineering (Winter 2014)