Raymond Leung

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SKILLS

React.js, Redux, JavaScript, HTML5, CSS3, Ruby, Ruby on Rails, jQuery, SQL, PostgreSQL, SQLite, MongoDB, Apollo GraphQL, AWS, Heroku, Firebase, Docker, Webpack, Python, MATLAB

PROJECTS

thisCable (JavaScript, React / Redux, HTML5, CSS3, SASS, PostgreSQL, Node, Docker)   [live site](#) | [github](#)

Live-messaging app modeled upon Discord

- Integrated real-time search results in the server discovery feature using regular expressions, thereby improving app navigation by granting users the ability to browse, filter, and join publicly available servers without the need for a server invite link.
- Utilized ActiveRecord associations to set user permissions restrictions on channels, strengthening privacy options for server owners.

Koala (JavaScript, React / Redux, HTML5, CSS3, SASS, MongoDB, Express, Node, Heroku, Docker)   [live site](#) | [github](#)

Site for users to ask and answer questions, emulating the structure of Quora, with a Koala theme

- Devised modular React components for varied and repeated use throughout the application, including a dynamic answers index that displays items based on page and current user, enabling easy implementation alongside or within other larger components.
- Designed answer forms to be automatically and infinitely extensible using React and JavaScript to style the component, allowing users to view the full length of their input without need for manual text area adjustment.

Jogga (JavaScript, React, HTML5, CSS3, SASS, MongoDB, Express, Node, Apollo / GraphQL, Heroku, Docker)   [live site](#) | [github](#)

Workout activity tracker based on Strava, emulating the activity and routes structures

- Implemented dynamic day-of-week and day-of-year calendar using JavaScript styling to easily summarize the relative activity level of the user per day
- Utilized external package react-infinite-scroll-component to minimize clutter in the home page activity feed until the user chooses to view older activities

jSharkanoid (JavaScript , HTML5, CSS3 , Firebase, Webpack)   [live site](#) | [github](#)

Variation on classic arcade game Arkanoid with a sea life theme

- Devised a sprite file naming convention and generation algorithm to randomize new levels' entity stats and placements, increasing replayability and strengthening incentive to achieve a win streak.
- Implemented a custom physics engine relying on object collision angular calculations to manage the movement mechanics of the titular shark, additionally allowing the shark image to rotate dynamically in the HTML5 canvas according to its calculated local coordinates.
- Incorporated mouse controls to improve user experience and build all game screens in the same HTML5 canvas, circumventing the need for any other HTML elements.

EXPERIENCE

Staff Engineer | March 2017 - October 2017
Hohbach-Lewin Structural and Civil Engineers

- Designed seismic retrofit of existing public school buildings for both ACSE 41 and ASCE 7, additionally devising a conversion system between the two codes' safety factors, resulting in increased workflow while adjusting previous calculations.

Junior Project Engineer | October 2017 - February 2019
Zenith Engineers, Inc.

- Managed team of four for equipment, pipe, and solar mount seismic bracing and anchorage.
- Coordinated with clients to schedule site visits and determine their specific structural needs.

EDUCATION

App Academy | Full Stack Web Development | June 2019 - December 2019 | San Francisco, CA
University of California, San Diego | Master of Science, MS, Structural Engineering | Spring 2015