Jeff Dam

Skills

Ruby, Ruby on Rails, JavaScript, jQuery, React.js, Redux, SQL, Git, HTML5, CSS3, Sass, PostgreSQL, MongoDB, Express, Webpack

Projects

Crux <u>Live Site</u> | <u>GitHub</u>

Crux is a clone of Mountain Project, a rock climbing guide website, built using Rails, React, Redux, PostgreSQL, Sass, and AWS.

- Implemented area and route CRUD actions using RESTful routes, database and model level validations, and React components.
- Reduced server load through the utilization of Active Record associations to extract data from multiple tables in a single query.
- Ensured secure user authentication using BCrypt to hash and salt passwords, and SecureRandom to generate session tokens.
- Incorporated photo upload feature using AWS S3 cloud services to reduce server load and Active Storage and Active Record associations to extract images efficiently.

TripMates Live Site | GitHub

TripMates is a web app that makes it easy for friends to plan a trip together, built using MongoDB, Express, React, Node.js, and Sass.

- Established the user interface by employing React to setup protected front end routes and to create and render components for trip CRUD actions.
- Optimized data being collected from the store by using IDs as keys in the redux store to provide O(1) lookup time with the state.
- Worked with a team utilizing GitFlow to develop features concurrently, keeping the master branch clean and free of bugs.

Gem Battle <u>Live Site</u> | <u>GitHub</u>

Gem Battle is a tile-matching puzzle video game based on Super Puzzle Fighter II Turbo, built using JavaScript, HTML5 Canvas.

- Applied breadth first search algorithm for a graph to locate and clear gems based on proximity to similar colored crash gems.
- Achieved DRY, modular code through the use of class inheritance for different types of gems and object-oriented programming.
- Optimized game animations using Canvas methods to ensure smooth movement with minimal processing power through the use of asynchronous functions, such as requestAnimationFrame().

Experience

California Academy of Sciences

June 2012 - March 2019

Instructional Designer

May 2017 - Mar 2019

- Created and formulated the departments Google budget spreadsheets using SQL query searches, complex math formulas, and easy to read UI design.
- Communicated deadlines and priorities with team members and contractors to design and create two online trainings that were hosted on the LearnUpon LMS platform serving over 1400 users per year.

Assistant Manager of Youth Engagement and Technology

Jun 2016 - May 2017

• Led trainings for teens and staff on utilizing Python to code logic that allowed users to use external interfaces, such as buttons, LEDs, and cameras, to connect with Raspberry Pi devices to develop their own environmental sensing devices.

Digital Learning Specialist and Youth Programs Coordinator

Dec 2014 - Jun 2016

• Designed and delivered teen programs serving more than 150 youth annually, including teens coding their own science games using Lua and Roblox game engine.

Science Action Club Education Specialist

Aug 2013 - Dec 2014

• Developed and led multiple two-day trainings for 15 afterschool staff on Science Action Club curriculum, focusing on breaking down barriers for educators without science backgrounds.

Education

App Academy Spring 2019

1000-hour immersive full-stack web development intensive with <3% acceptance rate

University of California, Berkeley

Spring 2009 - Summer 2013

BA - Planetary Science, Education Minor