Jimmy Nguyen

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Summary

- Competent developer with experience working on the complete SDLC including creating, design, documentation, development and unit testing of applications.
- Motivated to produce performant and robust software; highly passionate about programming
- Strong Experience creating Redux-based single-page applications
- Strong proficiency in JavaScript, including DOM manipulation and the JavaScript object model

Skills

Languages/Frameworks: Javascript, React.js, Redux, Ruby, Ruby on Rails, Express
Technologies: HTML5, CSS3, Git, SQL, jQuery, postgreSQL, MongoDB, Node.js, Canvas, AWS

Projects

JimmyJams (Ruby on Rails, PostgreSQL, React, Redux, Webpack, AWS, Heroku) live site | github

JimmyJams is a full stack replica of the popular online music distribution platform, SoundCloud, in which users can listen and upload their favorite tracks. (single-page application)

- Implemented user authentication with indicative validation errors that utilizes BCrypt salts, resulting in strengthened security
- Employed AWS Active Storage for dynamic images and audio files in development of Song CRUD to curtail server load and support future scalability within application
- Constructed top-level music player that integrated Redux's global store with conditional logic and AWS S3 to fetch audio data in the form of JSON objects, ensuring for persistent music streaming during navigation
- Developed a search functionality that utilizes Javascript promises to asynchronously fetch and query data from Heroku Postgres database to Ruby backend

RunEscape (MongoDB, Express, React, Redux, Node.js, Sockets.io) live site | github

A score-based, 2-d multiplayer endless runner game in which players compete against one another and accrue points by avoiding obstacles. RunEscape utilizes the MERN stack with canvas and socket.io for multiplayer.

- Established custom physics engine that manages character movements (ie. running, double jumping, air dashing) with designed dynamic hit-boxes utilizing keyframe animation for pixel-precise collision detections
- Optimized front-end architecture with OOP principles and flexible modular React components resulting in faster development workflow and DRYer code
- Introduced continuous animation states that switches pertaining to corresponding keydown/keyup event listeners for user-controlled characters, resulting in more realistic in-game movements
- Worked collaboratively with a team of four utilizing git-branch workflow to allow for iterative development

JimmyJumps (Javascript, HTML5, Canvas, CSS3) live site | github

An infinite platform jumper game in which players can jump over platforms and stick to walls to earn points. JimmyJumps utilizes Javascript, HTML5, and the Canvas API.

- Generated realistic, movement-based animation using asynchronous Javascript.
- Utilized collision resolution schemes for entities through subsequent movement leveraged by event listeners, based on player's future position and velocity
- Managed and decrease graphic rendering lag through the use of HTML5 Canvas and animation frames, resulting in a smoother and more realistic gaming experience

Education

University of California, Davis | Spring 2018 | Davis, CA | Bachelor of Arts in Economics