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SKILLS

Backend / Database: Ruby on Rails • PostgreSQL • SQLite • MongoDB • Express • GraphQL • Apollo

Frontend: React • React Native • React VR • Redux • jQuery • HTML5 • CSS3 • SCSS

Tools: Firebase • Git • Heroku • AWS S3 • npm • RSpec • Jest • InVision • Photoshop

PROJECTS

Bop (Rails, PostgreSQL, React, Redux, React Player, Sass, Webpack, AWS, Heroku) | *Sole Developer*

[live](#) | [github](#)

A single-page Spotify clone where users can stream music, create playlists, and follow their friends and favorite artists.

- Integrated React Player with Redux's global store by dispatching actions only when sharing information across components and encapsulating music player data to give the user a seamless, uninterrupted experience.
- Reduced needed PostgreSQL database tables by 25% and heavily DRYed up backend code by utilizing a one-to-many polymorphic table on the database level, as well as Rails concerns on the model and controller level.
- Designed a weighted search algorithm that initially displays the category with the most results and orders items based upon the relevance of the search query.

Project Phantom (React VR, npm) | *Collaborator in a team of 4*

[live](#) | [github](#)

A developer's toolkit for streamlining the creation of applications in virtual reality using React VR.

- Published a component library and navigation system for React VR as an npm that bypasses common pitfalls of content rendering and 360° visualization in virtual reality.
- Created an npx package runner that generates and initiates a pre-configured React VR project and demo app with a one-line terminal command to unburden the user of needed boilerplate code.
- Packaged a script that scrapes HTML content and dynamically renders it in a VR preview with the component library.

The Power of Friendship (JavaScript, HTML, CSS) | *Sole Developer*

[live](#) | [github](#)

A minimalist side-scrolling puzzle platformer that requires cooperation and intuitive thinking in order to solve puzzles.

- Constructed a unidirectional data flow architecture with a single application-level state object to prevent mutated state and data collision, and to ensure reliable DOM rendering.
- Built a custom physics engine that supports collision of many objects at once and manages movement patterns, gravity, and condition for each player while flying, swimming, or in gravity chambers.
- Implemented a tile-map parsing system that reads in a level, dynamically assigns individual tiles to 'actor' and 'background' layers, and ensures that only 'actor' tiles are repainted to the DOM, thus heavily reducing game lag.

EXPERIENCE

Software Development Instructor | *App Academy*

June 2018 - Present

- Mentor 10+ students through planning and execution of individual and group projects and conduct code reviews.
- Assist in debugging projects using Canvas, d3.js, MERN, React Native, GraphQL, etc.
- Administer mock technical interviews that test fundamental data structures and algorithms.

Language Instructor | *Self-Employed*

Oct 2015 - Feb 2018

- Designed and conducted 1000+ private ASL, English, and French lessons with a 99% approval rate from students.
- Adapted lesson structure according to students' varied cultural and linguistic backgrounds.

Technology Advisor, Webmaster | *University of Pennsylvania*

Aug 2012 - Aug 2015

- Refactored and updated CSS and HTML code segments for the Penn Computing website.
- Co-managed the successful relocation of library website and reorganization of electronic catalog storage system.

Web Designer | *Freelance*

Sept 2009 - Aug 2012

- Created and customized website, MySpace, and Tumblr layouts for 300+ clients and provided design consultations.
- Hosted open-source layouts and HTML, CSS, and JavaScript tutorials on a site with a traffic of 10,000+ users.

EDUCATION

Web Development - *App Academy*, 2018



B.A. - University of Pennsylvania, 2016 (summa cum laude)