

John Schoeman

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SKILLS

Ruby, RSpec, TDD, Ruby on Rails, JavaScript, React.js, React Native, Redux, Node.js, Apollo Client, GraphQL, SQL, PostgreSQL, AWS, Git, HTML5, CSS3

PROJECTS

Product Hunt App

A single page application built on Rails using React.js and Redux

Live Site: productjadt.herokuapp.com | Github: github.com/johnschoeman/product_hunt_app

- Implemented state denormalization in the Rails ORM to cache aggregate relational data, eliminating N + 1 queries and increasing asynchronous http request response cycle speed by 50%.
- Utilized the Flux design architecture to manage a normalized application state allowing for a seamless end user experience.
- Developed polymorphic and self-referential relational database tables to efficiently persist application data, leading to a modular and extensible code base.

Spot Me

A native mobile application built with React Native, Apollo Client, GraphQL, and Rails

Live Site: <https://aldahir15.github.io/SpotMeApp/> | Github: github.com/johnschoeman/spotme

- Created and managed an abstracted data layer for the application backend by creating a GraphQL server built with ruby.
- Implemented a network interface using Apollo Client to manage endpoint requests and eliminate under and over-fetching of user data from the mobile client as well as providing performance optimization by use of network caching.
- Acted as project manager of a 4 person team by organizing engineering strategy and efforts, which led to a successful project meeting all required project deadlines.

Mirror Prime Tree Visualizer

A number theory based data visualizer built with JavaScript

Live Site: johnschoeman.github.io/mirror-prime-tree/ | Github: github.com/johnschoeman/mirror-prime-tree

- Devised and implemented an original algorithm which generates tree data structures to visualize relationships between prime numbers.
- Achieved fast rendering of data by utilizing memoization, functional programming, weak mapping and recursion to reduce computational intensity and improve time complexity.
- Took advantage of the Event Loop to optimize concurrent animations together into a single reflow and repaint cycle, leading to higher fidelity animation.

EXPERIENCE

Structural Engineer

DeSimone Consulting Engineering (a 200 person structural engineering firm)

Sept 2014 - July 2017

Lionakis (a 200 person architectural firm with structural design services)

Jan 2014 - Sept 2014

- Created software programs used by other engineers to automate the design of long-span structural members and high-strength ductile connections compliant with the the California Building Code structural design specifications.
- Updated and optimized engineering legacy software used by a 200 person structural engineering firm to produce and analyze wind design loads for high rise construction.
- Responsible for structural design solutions and analysis used to produce construction documents for building structural systems for the hospitality and commercial construction markets.

EDUCATION

App Academy (Spring 2017)

Immersive software development course with focus on full stack web development

- Rigorous program that accepts < 3% of all applicants

California Polytechnic University @ San Luis Obispo (Spring 2013)

BS - Architectural Engineering, Minor - Mathematics, cum laude

- Top Ranked Architectural Engineering Program