Derek Shue

(908) 809-3240 dshue@berkeley.edu LinkedIn Github Portfolio San Francisco / Bay Area

Skills

JavaScript, React.js, Redux.js, Ruby, Ruby on Rails, RSpec, MongoDB, Express, Node.js, Python, SQL, Git, HTML5, CSS3, PostgreSQL, jQuery, GraphQL, Apollo, Docker, AWS S3

Projects

Fakebook (JavaScript, React / Redux, Ruby / Rails, HTML5, CSS3, PostgreSQL) Live Site | Github

Facebook clone

- Utilized polymorphic associations to reduce database calls and allow for a lighter weight, scalable application
- Implemented eager loading to eliminate "N+1" queries and drastically improve loading times
- Leveraged Redux single-state management to streamline communication between backend and frontend architecture
- Incorporated stylistic features of Facebook using HTML / CSS, including color schemes, navbar layout, and button and text element styles

Pokemon Battle Simulator (in Progress) (JavaScript, HTML5 Canvas) Live Site | Github

Two-player turn-based Pokemon battle game and single-page application

- Implemented movement animation using requestAnimationFrame to make the Pokemon come alive and create a more engaging game
- Integrated health, damage, and statistic calculations from the current Pokemon games through state changes that rely on Object-Oriented Programming techniques and conditional logic
- Incorporated continuous animation playback loop within framework of turn-based, state-shaped conditional logic

MusicBox (JavaScript, GraphQL, React.js, Apollo, Node.js, MongoDB, AWS, Docker, HTML5, CSS) Live Site | Github

Amazon-themed music store

- Created custom mutation and query components to follow OOP design and create and load object elements
- Stored newly created users and products in MongoDB to handle large quantities of data and make the application scalable
- Implemented AWS S3 bucket to allow a user-filled form on the frontend to upload a product to the database backend
- Utilized Git workflow in a team setting to cooperate efficiently and review team members' code

Experience

Lawrence Berkeley National Laboratory

Research Assistant Summer 2018

- Investigated the limb-specific enhancer ZRS at Sonic hedgehog (Shh) gene in snakes through researching phenotypic robustness and ultraconserved enhancers
- Gathered DNA samples from 10-12 mice per week through euthanization and clipping
- Updated and organized transgenic mice data via Google Sheets

Tufts Medical Center

Research Assistant Summer 2015, 2016

- Conducted study to investigate correlative links between JAX mouse genes and Alzheimer's Precursor Protein (APP)
- Evaluated the effects of Drosophila melanogaster genes on the production of EAAT1, which is correlated with ALS
- Mentored student in standard laboratory procedures
- Analyzed laboratory data through qPCR readouts

Education

App Academy September 2019 - February 2020

Immersive software development course with focus on full stack web development

University of California, Berkeley August 2016 - May 2019

Bachelor's in Cognitive Science - GPA: 3.7

Relevant Coursework: The Structure and Interpretation of Computer Programs, Computational Models of Cognition