Derek Shue

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Education

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

App Academy   September 2019 - February 2020
Immersive software development course with focus on full stack web development

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