Joe Xiyang Lu

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SKILLS:

JavaScript, Ruby, Python, R, Ruby on Rails, Node.js, React.js, Redux.js, Express.js, PostgreSQL, MongoDB, AWS, HTML5, CSS3, jQuery, Heroku, Webpack, Babel

PROJECTS:

CopX *React/Redux, Ruby on Rails, PostgreSQL, CSS3, AWS, Heroku* Live | Github

Clone of StockX.com, a single-page, e-commerce website built on a Rails server with a dynamic React.js user-interface that allows users to browse through and shop sneakers.

- Secured user credentials using BCrypt for the backend and custom React AuthRoute for front-end authentication.
- Applied JavaScript to manipulate the DOM and create an interactive UI that responds to various events.
- Stored sneaker images on AWS S3 allowing for the quick transfer of assets needed for loading website content.
- Employed JBuilder to shape backend API endpoints, fetching appropriate data through the Redux cycle in order to efficiently render sneakers and purchase history.
- Designed a backend filter algorithm that displays the index items by tags and categories at the controller level.
- Built search function by Active Record to dynamically query on the database and display sneakers info by input.

TestZoo *MongoDB, Express.js, React.js, Node.js* Live | Github

MERN-stack team-built quiz-making web application where users are able to create quizzes, customize questions and answers, and test themselves on quizzes already created by other users.

- Implemented user authentication by encrypting user details via the JSON Web Token library to be sent over HTTP using Axios to be decrypted via the JWT library on the frontend.
- Built and custom-designed interface using React and Javascript for users to build tests for other players, pose questions, and edit in the test-editing platform.
- Updated player's game performance via Axios requests then Express routes in the backend and simultaneously change current score in the frontend.

FindDiamond *Three.js, Physijs, jQuery* Live | Github

A 3-dimensional maze game inspired by Minecraft

- Built a 3-dimensional game space by implementing geometries in the Three.js library for richer gameplay experience.
- Incorporated Javascript event listeners for use of mouse click and movements to control the game.
- Engineered collision and physical behaviors of moving-object using vanilla Javascript and Physijs library for more dynamic and interactive gameplay.

Gun Violence Analysis *Python, Pandas*, Matplotlib, Word Cloud Package Spring, 2019

A data analysis study about gun violence in the Bay Area

- Used python to web-scrape the gun violence raw data integrated from gunviolencearchive.org API.
- Cleaned and tidied the raw data using the Pandas library in order to process the data into statistical models.
- Leveraged Matpoltlib and Word Cloud to make interactive data visualizations.

EXPERIENCE:

Summer Programming Intern

Data Jaguar Jun 2018 - Aug 2018

- Trained to learn the Linux system, write code in Shell scripts to operate the system by command lines.
- Introduced to SQL and NoSQL database to proficiently input and output data from the database.
- Built a feature in Shell Scripting to recognize data types in CSV files, used in Data Jaguar's NoSQL database, to optimize the data entry speed.

EDUCATION:

University Of California, Davis - *BS Applied Statistics, 2019*

App Academy - An immersive 1000+ hour full-stack software development course with <3% acceptance rate, 2020