JAEHYUK LEE

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SKILLS
JavaScript, Ruby, HTML, CSS, React, Redux, Node.js, Express, Rails, PostgreSQL, MongoDB

PROJECTS

SoriCloud | React | Redux | Rails | Postgres | jQuery | webpack | Amazon S3   live | github
A single-page web application for streaming music and uploading your own - a SoundCloud clone
- **Redux to enable continuous and non-overlapping audio playback through navigation:** Engineered a slice of front-end Redux state to maintain reference to the currently playing track to implement a fluid site-wide audio player and UI.
- **Modular components and DRY code:** Leveraged Redux actions with modular SeekBar subcomponents to sync the main audio player with interactive waveform visualizations and play-pause toggle buttons.
- **Scalable backend design with database indexing & avoiding N+1 queries:** Designed RESTful APIs and optimized queries by indexing foreign IDs and eager-loading Active Record associations to extract data from multiple tables in one request.
- **Reduced server load:** Integrated Amazon S3 with Rails and Postgres for cloud storage of media uploads.

Museic | React | Redux | Node.js | Express | MongoDB | Amazon S3   live | github
A social web application with a unique UI to record and share short melodies
- **Custom piano component & lightweight storage of music:** Created an intuitive piano keys interface with React and Tone.js that allows for user input to be saved directly into the database as an array of music notes, eliminating the need for audio file storage.
- **Dynamic visualization of user input:** Built a visualization component that draws user input notes to the DOM in real-time by using simple math with React and CSS, enhancing user engagement and interactivity.
- **Secure user auth:** Encrypted user details via the JSON Webtoken library to be sent over HTTP using Axios to be decrypted via the JWT-Decode library on the front end.
- **Git workflow:** Facilitated collaboration by managing workflow on Git, and demonstrated the ability to work on others' code.

Animated Image Histogram | JavaScript | HTML5 Canvas | CSS3   live | github
A fun program to turn any image into an image histogram
- **Canvas API and JavaScript for pixel by pixel manipulation:** Devised an algorithm to extract information from and calculate animation details for all pixels in O(n) time. Executed animation using only JavaScript and canvas API.
- **Responsive web and mobile design with CSS media queries:** Designed an intuitive interface that allows users to adjust various parameters to customize their animations and to capture stills and videos.

EXPERIENCE

Project Manager
U-Mind Club | E-Commerce Platform | Los Angeles, CA   Jan 2017 - Aug 2019
- Streamlined the collaboration between external and internal teams of engineers by introducing a new co-working tool to the project workflow, enabling clear communication and minimizing difficulties from language barrier and time difference.
- Prioritized improvements of the seller central UI through analysis of customer feedback data, resulting in a 20% increase in the number of products listed in a quarter.

Data Administrator
North Carolina Joint Underwriting Association | Property Insurance | Raleigh, NC   Jul 2014 - Jun 2016
- Ensured consistent data scrubbing procedures for a year-long project to transition from an MS-DOS database management system to new software to improve efficiency and customer support quality.

EDUCATION

Software Engineering - App Academy | San Francisco, CA   Fall 2019
- Topics: OOP, REST, scale, TDD, algorithms, computer science concepts, software design, and programming best practices.

Bachelor of Science - Duke University | Durham, NC   Aug 2008 - May 2012
- Bachelor of Science in Psychology, Minor in Statistical Science, Certificate in Markets and Management
- Honors: Graduation with Distinction May 2012, Dean's List Fall 2010
- Curriculum Highlights: Linear algebra, multivariable calculus, statistics, probability, physics