ANNIE GIANG

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SKILLS

JavaScript, MongoDB, Express, React, Redux, Node, Ruby, Rails, jQuery PostgreSQL, HTML5, CSS3, Git

PROJECTS

iFluent (iTalki Clone)   Live Site | Github

*Fullstack clone of iTalki, a language learning platform, using **React, Redux, Ruby on Rails, and Postgresql**.*

- Designed the ability to search for teachers by language by sending the language name as a query and establishing Active Record associations between teachers and languages to filter teachers based on the given language.
- Enhanced query fetch performance by prefetching data associations using Active Record's includes method, avoiding N+1 queries for nested associations.
- Improved state organization by storing core data types in objects and making the IDs as keys and data as values, achieving constant lookup time and normalizing the Redux store.
- Implemented secure user authentication by storing hashed passwords generated using Bcrypt and storing session tokens using Rail's Session to maintain user-specific state to correctly identify users upon HTTP requests.
- Leveraged the React-Alice-Carousel library to build a photo gallery that allows users to click through slides using navigation buttons.

Piano Tiles   Live Site | Github

*Single-player game containing two modes where the goal is to tap tiles quickly while avoiding non-target tiles, built using **Vanilla JavaScript, HTML5 Canvas, and OOP principles**.*

- Designed dynamic game play by incorporating keypress and mouse click functionality, using event listeners to access keypress codes and offset values to calculate the vertical and horizontal boundaries of valid target taps.
- Utilized Canvas's request animation frame to animate the movement of tiles to move by an amount of a tile's height, simultaneously adding new rows of tiles at the top of the canvas as rows animated out of the canvas frame.
- Incorporated accurate countdown timers using the Date Object to calculate the delta time between animation frames, allowing stable frame-rates by compensating for time taken by computations.
- Incorporated two modes of game play by designing modular methods that execute the appropriate game logic given a mode, alongside achieving DRY code.

Mood Booster (team project)   Live Site | Github

*A MERN application (**MongoDB, Express, React, and Node**) that promotes mental care to boost productivity for software engineers.*

- Developed a dynamic API route that handles favoriting functionality for all three content types (photos, videos, and quotes) by sending content-identifying information in the request body of every Axios call.
- Implemented CRUD commenting functionality by embedding comment documents in all three content type Mongoose models and referencing the user's ID within comment documents.
- Customized private API routes by storing signed JSON Web Tokens in the request headers upon successful login/sign up and utilizing the Passport-JWT Strategy to authenticate tokens, allowing users to access protected routes.

EXPERIENCE

Outreach and Recruitment Manager

Breakthrough San Francisco, Apprenticeship*, Sept 2018 - June 2019*

- Utilized Wordpress's Divi plugin to completely redesign Breakthrough's website for friendlier usability, launching new brand identity and incorporating new colors and logo. (www.breakthroughsf.org)
- Excelled in building relationships with families, volunteers, and teachers at 43 elementary schools to support full-day interviews and application reading events, successfully recruiting 36 historically underserved students to join Breakthrough's free 8-year program to become first-generation college students.

EDUCATION

App Academy - Rigorous 1000-hour software development course with <3% acceptance rate (2019)

University of California, Berkeley - *BA - Cognitive Science* (2014-2018)

- **Coursework:** Computational Models of Cognition, Structure and Interpretation of Computer Programs, Cognitive Neuroscience, Discrete Math, Symbolic Logic
- **Awards:** Cal Opportunity Scholarship (2014) - A prestigious UC Berkeley full-ride scholarship that provides financial and academic support for students who excel in academics, community involvement, and personal development.