CHENG "CHRIS" TSAI

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SKILLS

Ruby, Ruby on Rails, AJAX, JavaScript, jQuery, React.js, Redux, Flux, SQL, Heroku, Git, PostgreSQL, HTML5, CSS3, SCSS, RSpec, TDD

WORK SAMPLES

SafeWeb Extension for Google Chrome   Live Site | Github
A Chrome Extension to help parents monitor their child's internet usage.

- Implemented keyword filtering feature by dynamically manipulating the DOM to remove the contents containing inappropriate keywords.
- Used Chrome Storage API to store, update, and retrieve users information
- Designed an algorithm to determine if the child-user should be allowed internet access by checking the current time against a time duration preset by the parent-user

FreshCards   Live Site | Github
An application built with Rails and React.js for users to create, manage, and study flashcards.

- Implemented user authentication functionality by using Ruby BCrypt gem to encrypt user information, and using React component architecture and React Router to secure site navigation.
- Leveraged the React.js virtual DOM and modular React components to ensure fast, smooth, and intuitive app navigation.
- Optimized database searches and eliminated N + 1 queries through the RESTful API by leveraging the power of ActiveRecord associations in Rails.

VSEPR Models   Live Site | Github
A data illustration application built with JavaScript to provide interactive 3D views of molecules

- Used ChemDoodle Web Component Library to create 3D molecule models on HTML5 canvas element.
- Implemented dynamic DOM manipulations to update the molecule information upon user's selection.
- Implemented modal window to show instructions on how to interact with the application when the user launch to leverage user experience.

EXPERIENCE

Research Assistant   June 2015 - Jan 2018
Henlix, Inc.

- Ensured reliable experiment quality of less than 0.2% contamination on cell culture, resulting in saving time and budgets for the team.
- Recruited and trained 3 new employees in experiment conduction and special instrument implementation within 2 weeks.
- Created data recording templates for 3 types of experiment to maintain unified and clear records

EDUCATION

App Academy   (Spring 2018)
Immersive software development course with focus on full stack web development

University California @ Davis   (Spring 2015)
BS - Medicinal Pharmaceutical Chemistry