Jason R. Chew

(661) 964-8339   jrchew15@gmail.com   Portfolio   LinkedIn   Github   San Francisco / Bay Area

Skills

Languages JavaScript, Python3, HTML/CSS, MATLAB
Frameworks/Packages React.js, Redux.js, Sequelize.js, Express.js, Flask
Key Skills Agile development, Object-oriented programming (OOP), Test-driven development (TDD), Pair programming

Projects

Word Play Puzzles (Python, Flask, JavaScript, React / Redux, HTML, CSS, PostgreSQL)   Live Site | Github
An interactive, online puzzle platform taking inspiration from the New York Times Puzzles
- Minimized requests made to an external API (WordsAPI) by adding validated words to a database table
- Constructed a lightweight, responsive puzzle display with raw css and frontend calculation of component attributes
- Created a smooth user experience with React by instituting logic flow during keyboard events on a puzzle
- Improved data reliability by automatically saving with PostgreSQL and displaying progress on home page using Redux

Nah-sana (Python, Flask, JavaScript, React / Redux, HTML, CSS, PostgreSQL)   Live Site | Github
A project management web application modeled after Asana
- Coordinated workflow and git procedure with a team to assure smooth deployment to production
- Spearheaded wireframing for the page layout to standardize component sizing across all features
- Implemented dropdown menus using React context and custom event listeners

NoiseFog (JavaScript, Sequelize, React / Redux, Express , HTML5, CSS, PostgreSQL)   Live Site | Github
An audio playing application and user-populated music library modeled after SoundCloud
- Designed RESTful API endpoints using Express and Sequelize to serve records for hundreds of songs, albums, and artists
- Utilized Redux to implement a queue system which allows immediate play or extension of current queue
- Employed data normalization within Redux state for scalability and $O(1)$ lookup time for songs, albums, and artists

Education

App Academy   May 2022 - Oct 2022
Immersive software development course with focus on full stack web development.

University of California, Santa Cruz
Ph D in Mathematics (incomplete)   Sept 2017 - May 2021
     Courses: Partial Differential Equations, Differential Geometry

California Polytechnic State University (Cal Poly), San Luis Obispo
Masters of Science in Mathematics   Sept 2015 - June 2017
     Courses: Discrete Math w/Applications, Applied Analysis/Functional Analysis
Bachelors of Science in Physics   Sept 2009 - June 2013

Experience

Futures Academy (Private school) - ***Teacher / Mentor***   May 2021 - May 2022
- Managed the curriculum and class schedule for 10+ different high school math and science courses simultaneously
- Tailored course curriculum to the learning needs of individual students between 8th-12th grade
- Developed assignments and projects in order to teach a year-long course in 6 weeks

University of California, Santa Cruz - ***Teaching Assistant (TA)***   Sept 2017 - May 2021
- Assisted in the instruction and development of a Computational Mathematics course on computer arithmetic and numerical methods for scientific modeling of data
- Trained incoming TA's, equipping them with evidence-based pedagogical skills

Cal Poly, San Luis Obispo - ***Teaching Assistant (TA)***   Jan 2016 - June 2017
- Planned curriculum for several 10 week pre-calculus courses and led weekly lectures
- Collaborated with other faculty to provide practice problems and tests for all precalculus and calculus courses