YU-HUAN WU

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SKILLS
JavaScript, Ruby, React, Redux, Rails, HTML, CSS, SQL/Postgres, Playwright, MongoDB, Express.js, Node.js

PROJECTS

TagAlongs | *(Mongodb, Express, React, Node.js, Google Map API)*   **live** | **github**

A volunteer-based buddy system that allows users to request companionship for a certain route or location.

- Implemented User Auth by encrypting user details via JSON Webtoken library to be sent over HTTP using Axios to then be decrypted via JWT-Decode library on frontend, ensuring secure verification.
- Wrote model level validations to check for inclusion of password/email upon login using Validator.js library.
- Applied Mongoose populate method to fetch underlying related data across multiple collections, thus reducing the volume of call to backend server.
- Spearheaded mobile-responsive design using SCSS's media-query, optimizing the layout of contents across multiple devices.

EweTube | *(React/Redux, Rails 5, PostgreSQL, HTML5, CSS, JavaScript, Amazon Web Services S3)*   **live** | **github**

An Ovis-themed YouTube clone.

- Integrated Redux with HTML5 media web components to create customized video playback for users.
- Harnessed power of S3 through creation of cloud functions to upload and delete files while protecting API key and streamlining AWS API interaction through server side programming.
- Optimized backend routes and shape of front-end state to minimize load-time for process-heavy user experience, especially in user login-in, which relies heavily on preferences saved by user in previous sessions.

Octet Stabilizer | *(JavaScripts, Canvas, HTML5, CSS)*   **live** | **github**

An educational game that demonstrates how the octet rule works in Chemistry.

- Engineered layers of gaming complexity through introduction of game state changes that rely on Object Oriented Programming techniques and conditional logic.
- Built custom game engine using JavaScript's eventListeners to manage movement mechanics of atoms with colliding physics that generate visually compelling gameplay experience.
- Incorporated custom drawImage function to render different frames of source image at calculated timepoints, creating smooth and visually appealing animation for game playable objects.

EXPERIENCE

Junior Instructional Assistant, *App Academy*   Nov 2021 - Present

- Provide technical and conceptual assistance to students while maintaining responsibility for student success.
- Mentor 10- 12 students per cohort as they move through the course and provide daily small-group instruction.

Science/ Coding Teacher, *Ephraim Williams College Prep Middle School*   Aug 2020 - Jun 2021

- Served on committee that examined the district's middle school Science curriculum and identified over two dozen issues and designed improvement plan for Life Sciences and Physical Sciences curriculum across 4 campuses.
- Enhanced Apple's Community Education Initiative (CEI) Coding curriculum by being first and only teacher to adopt programming concepts taught in iOS' Swift to JavaScript, HTML, and Dart.
- Created functional apps using Xcode and Android Studio to demonstrate the best practices for app-design, which contributed to 200% increase in completed student App prototype pitches compared to the year before.

High School and Middle School Science Department Chair/ Teacher, *Vacaville Christian School*   Aug 2012 - Jun 2020

- Collaborated with other departments to create cross-disciplinary lesson plans, resulting in over 50% increase in AP Exam pass rate from 2011.
- Organized inquiry labs that teach skills such as population surveying techniques, analytical practices, and calculations, resulting in highest Advanced Placement enrollment in school's history.

EDUCATION

AppAcademy - *Full Stack Development Certificate*, 2021
UC Davis School of Education - *Master of Arts (MA) in Education,* 2011-2013
UC Davis - *Bachelor of Science (BS) in Biological Sciences,* 2007-2011