YU-HUAN WU

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SKILLS

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

PROJECTS

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

- Implemented User Auth by encrypting user details via the JSON Webtoken library to be sent over HTTP using Axios to be decrypted via the JWT-Decode library on the frontend.
- Wrote model level validations to check for inclusion of password/email upon login using the Validator.js library.
- Used Mongoose populate method to fetch underlying related data across multiple collections.

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

- Integrated Redux with HTML5 media web components to create customized video playback for users.
- Harnessed the power of S3 through the creation of cloud functions to upload and delete files while protecting the 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 a user in previous sessions.

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

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

EXPERIENCE

Science/ Coding Teacher

Ephraim Williams College Prep Middle School August 2020 - June 2021

- Served on a committee that examined the district's middle school Science curriculum and identified over two dozen issues, which led to an improvement plan for the 2021-2022 Science curriculum.
- Improved Life Sciences and Physical Sciences curriculum for science teachers across 4 campuses to use in their distance learning classes.
- Enhanced Apple's Community Education Initiative (CEI) Coding curriculum by being the first and only teacher to adapt 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 an increase of over 200% in completed student App prototype pitches compared to the year before.

High School and Middle School Science Department Chair/ Teacher

Vacaville Christian School August 2012 - June 2020

- Collaborated with other departments to create cross-discipline lesson plans, resulting in an over 50% increase in AP Exam pass rate from 2011.
- Supervised department budget of over $8000 each year to provide critical lab equipment to every student, ensuring engaging lab activities in every Science classroom at least twice a month.
- Organized inquiry labs that teach skills such as population surveying techniques, analytical practices, and calculations, resulting in the highest Advanced Placement enrollment in that 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