Joe Xiao

P. (646)-920-0417 Software Engineer joexiao97@gmail.com LinkedIn Github Portfolio Brooklyn, NY

SKILLS

Ruby, Ruby on Rails, JavaScript, React.js, Node.js, Express.js, Redux, jQuery, SQL, PostgreSQL, Mongoose, MongoDB, Git, Heroku, HTML5, CSS3, Amazon Web Services (AWS S3), Webpack

EDUCATION

App Academy - An immersive, 1000+ hours software development course with focus on full-stack web development with < 3% acceptance rate (Winter 2020)

Brooklyn College - *BS - Computer Science* (Spring 2019)

Relevant Coursework: Object-Oriented Programming, Operating Systems, Databases, Algorithms, Data Structures, Computer Architecture

PROJECTS

Aniflix Live Site | Github

Netflix clone based on Anime

- Incorporated Ruby on Rails for the backend and React/Redux for the frontend, using PostgreSQL as the database.
- Designed and formatted to remotely store and host videos on the cloud via AWS S3 and efficiently retrieves and loads video data only when the user hovers for a video preview, which reduces website load time by more than 50%, and reduces S3 data costs by over 75%.
- Implemented a frontend search which uses the O(n) lookup and write time of Objects, which effectively generates a list of videos to be rendered, without having to query the database or retrieve from S3.
- Leveraged Rails polymorphic associations for movies' types and genres linked from S3 database to allow for modular and DRY coding patterns.

FishyDex Live Site | Github

Crowdsource-based fishing app

- Implemented and designed based on the MERN (MongolDB, Express.js, React.js, Node.js) stack.
- Incorporated AWS S3 alongside MongolDB and Express that allows users to post pictures which are reflected on different types of modules, such as user albums and fish display and information pages, using associations.
- Utilized Google Maps API and React to create an interactive map with different piers and pinned local fishing spots that uses React to link each pinned location to their respective informational pages.
- Effectively utilized Git conventions for version control between team members throughout the development and deployment cycle to allow for easy and organized collaboration between team members.

Tower Defense JS Live Site | Github

An interactive Tower Defense game where users can place turrets to defend against the oncoming waves.

- Built using JavaScript, DOM manipulation, and HTML Canvas, which allows drawing and rendering of graphics.
- Assigned each section of the canvas into a grid which is then mapped into an Object hash that is used to assign turrets, dictate enemy path, and determine the distance between turret and enemy.
- Implemented modular components for both turrets and enemies allowing for easy incorporation into future updates, such as being able to create new maps, enemies, and turrets.
- Utilized an turrets' Object and enemies' Object, which stores and updates current location, to be able to determine the distance between the turret enemy to enable attacking and damage calculations.

EXPERIENCE

Programming and Robotics Instructor (Lead Instructor)

Apex for Youth, Jan 2016 - July 2019

- Oversaw and maintained a safe learning environment by paying attention to details and preventing and resolving problems as soon as they are detected.
- Structured daily lesson plans to most effectively pique student interests, using technologies such as Scratch and Lego Mindstorms, which produced an participation increase of 25% from historically less participatory students.
- Collaborated with other instructors and developed different ways of improving student participation and involvement.