Jason McKenna

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TECHNICAL SKILLS

JavaScript, React.js, Ruby on Rails, Ruby, Redux, SQL, jQuery, MongoDB, Node.js, Express.js, HTML5, CSS3, Mongoose.js, Heroku, Ajax API, Webpack, AWS

PROJECTS

RePlay | Ruby on Rails, JavaScript, React.js, Redux.js, AWS, PostgresDB   Live Site | Github

A pixel-perfect clone of YouTube where users can: post, view, like, or comment, on other user's videos
- Constructed a video hosting website with a Ruby on Rails backend and JavaScript frontend to build a RESTful API
- Utilized Rails polymorphic associations with likes and videos to minimize redundancy without N+1 querying.
- Optimized querying techniques by minimizing the amount the database needed to be accessed, resulting in a smoother, and quicker user experience.
- Established a custom user-auth pattern to ensure user privacy and custom control for all of their content.
- Built the Rails backend to utilize cloud-based storage for any file uploads and manipulation

Last Man Typing | Javascript, Canvas , Firebase Database, HTML, CSS   Live Site | Github

A JavaScript only app that tests a user's typing speed in a fun, challenging way.
- Implemented JavaScript to create game which will randomly generate spaceships, and require the user to type out an attached word to destroy it.
- Developed a WPM algorithm that will track typing speed only when there are words available to be typed
- Crafted UI and animations using canvas, and integrated Google cloud services to store high scores, and present them in real time.

J-Suites | MongoDB, Mongoose.js, Express.js, React.js, Node.js   Live Site | Github

A managerial software concept that organizations could use to schedule events or activities
- Designed and built a backend database to successfully pass the appropriate information to the frontend engineers.
- Formulated users to have different accessibility and privileges depending if they were given admin status.
- Fashioned the ability a user to toggle all of: their events, their department's events, and any events taking place in the organization
- Managed group effort with proper git-workflow, constant communication and meetings, and facilitating assigned work.

Mine-Sweeping Autonomous Robot | C

Constructed a robot with autonomous navigation and metal detecting capabilities
- Led interdisciplinary team of engineers to create a rover capable of traversing a field and avoided obstacles.
- Developed and implemented a field traversing algorithm with in field calibration to have a 95% success rate.
- Surpassed class performance by being one of the only groups to reach all the tasks and goals put forward.

EXPERIENCE

Graduate RF Engineer

Center for Advanced Microelectronic Mfg, Jun 2018 - May 2019
- Designed circuit configuration to fully integrate RF structures with other active/passive components.
- Presented analyzed data to companies and explain complex ideas of RF engineering to the non-technical members.
- Investigated causes of failure during test and redesign structures to make a more robust and reliable product.
- Oversaw the purchasing of new lab equipment and developed safety protocols to increase longevity of the system.

Graduate Research Assistant
Integrated Electronic Engineering Center, Jan 2018 - May 2019
- Quantified the performance of LED lights and analyzed potential repercussions on the power grid.
- Developed parsing algorithms in both MATLAB and Excel to analyze trends found in over 22,000 collected data samples.
- Created models and visualizations to generalize their impacts and presented conclusions to board of professionals

EDUCATION
App Academy - Immersive software development course with under a 3% acceptance rate (Fall 2019)
Binghamton University - *MS - Electrical Engineering*   (Spring 2019)