

Jason McKenna

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EDUCATION

App Academy - Immersive software development course with under a 3% acceptance rate (Fall 2019)

Binghamton University - *Masters of Science - Electrical Engineering* (Spring 2019)

TECHNICAL SKILLS

JavaScript, ES6, React.js, Ruby on Rails, Ruby, Redux, PostgreSQL, jQuery, MongoDB, Node.js, Express.js, HTML5, CSS3, Mongoose.js, Git Heroku, Ajax API, TDD, Webpack, AWS

PROJECTS

RePlay | Ruby on Rails, JavaScript, React.js, Redux.js, AWS, PostgreSQL

[Live Site](#) | [Github](#)

A pixel-perfect clone of YouTube where users can: post, view, like, or comment, on other user's videos

- Utilized Rails polymorphic associations and eager-loading to optimize querying techniques and minimized requests to the database; thus improving scalability.
- Established a custom user-auth pattern with BCrypt by tracking session cookies and utilized react-router-dom to create front-end routes to ensure user login. Utilized BCrypt gem to store a hashed version of the password in the database.
- Devised custom RESTful routing and SQL querying to implement a search feature to find users and videos.
- Built the Rails backend to integrate AWS for video uploads and reducing server load.

Last Man Typing | JavaScript, Canvas, Firebase Database, HTML, CSS

[Live Site](#) | [Github](#)

A pure JavaScript only app that tests a user's typing speed in a fun, challenging way.

- Applied vanilla JavaScript to organize game logic and provide a clean and maintainable codebase
- Developed a words-per-minute algorithm that tracks typing speed only when words are present
- Utilized recursive animation functions for Canvas to create moving objects and have them behave in accordance with the game's logic.
- Integrated Google cloud services to store high scores and present them in real time.

J-Suites | MongoDB, Mongoose.js, Express.js, React.js, Redux, Node.js

[Live Site](#) | [Github](#)

A managerial software concept for scheduling events or activities

- Built the backend routes with Express Router and used Mongoose.js to communicate with MongoDB and link information to the front end
- Created frontend & backend validations to give users different privileges depending if they were administrators.
- Combined React & Redux to load parameters into the state to toggle between department events and RSVP'd events
- Managed group effort with proper git-workflow, constant communication, and deadlines for all group members.

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 avoiding obstacles.
- Blueprinted and programmed 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 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 MATLAB 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

Captain Men's Rugby Team

Binghamton University Rugby Football Club, Sep 2014 - Nov 2018

- Led a team of individuals by coordinating weekly practices and ensured growth and safety of organization.
- Strengthened on campus presence by organizing recruiting events and encouraging students to join.
- Addressed inter-player conflict and provided solutions that would promote success of the group