# Ryan Monaghan

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SKILLS React.js, Ruby on Rails, JavaScript, jQuery, Ruby, Redux, SQL, Git, HTML5, CSS3, RSpec, Canvas, AWS, IndexedDB

## **PROJECTS**

**Betzy** (Ruby on Rails, React.js, JavaScript, jQuery, Ruby, Redux, SQL, Webpack, HTML5, CSS3, AWS)

<u>Live Site</u> | <u>Github</u>

A single page full-stack application inspired by the popular online store, Etsy

- Utilized Ruby on Rails to implement user authentication with BCrypt password encryption on the backend in conjunction with cookies to produce a user login that persists across browsing sessions.
- DRYed up code by leveraging a single React modal component to accomplish the rendering of both the login and sign up form on the client side.
- Established single set of Ajax requests to fetch relevant data pertaining to users, categories and products on initial render of the homepage, reducing backend calls and improving scalability.
- Applied SASS variables in conjunction with a simple check against the user table for toggleable color scheme, allowing for each user to enable or disable a Dark Mode theme while logged in.

Al Fitness Dash (JavaScript, Webpack, IndexedDB, HTML5, CSS3, Canvas)

Live Site | Github

An active visualization of machine learning using a genetic algorithm to produce navigating AI bots

- Developed an evolutionary algorithm using pure JavaScript, that combines the best genes from a batch of AI bots, sorted by
  the travel goal success or closest to goal position, to produce dynamically evolving generations that navigate a randomized
  map with increasing effectiveness.
- Integrated sliders with event listeners to trigger an update to its corresponding setting, allowing for easy user configuration of the algorithm and other settings such as population size and trial time.
- Created a collision system with directional triggers by checking the XY coordinates of Canvas rendered objects against each other within an update sequence, giving AI bots the ability to detect obstructions in their environment while navigating.
- Utilized the JavaScript requestAnimationFrame method rather and setInterval or setTimeout, resulting a reduced memory usage and smoother performance.
- Implemented IndexedDB with Javascript promises to create a client-side database to store the new AI gene sets in the browser, allowing the page to be refreshed and reloaded on each round for a consistently smooth experience.

## **EXPERIENCE**

### Self-employed IT Helpdesk Technician

Ryan's Tech and Computer Services, Nov 2018 - Sept 2019

- Provide certified, on-site technical support and troubleshooting for computer and tech related issues.
- Professionally handle a variety of computer needs including: data transfer, Wi-Fi setup, hardware upgrades, and system cleanup.

### Bartender

Tonchin, Feb 2018 - Oct 2018

- Handle all aspects of the bar from preparation and service to breakdown, cleanup and inventory.
- Mix classic and specialty cocktails using Japanese precision bartending techniques.
- Pour draft beer, wine, and sake.

#### Bartender, Server

Robbins Wolfe Eventeurs, May 2017 - Feb 2018

- Assisted in the preparation, service, and break down of parties and private events including weddings and corporate sponsored banquets..
- Assisted in providing quality catering service for up to 400 guests per night.
- Restocked the bars for the bartenders and occasionally made cocktails.

#### IT Helpdesk Technician

RCS Professional Services, Jan 2017 - April 2017

- Provided remote technical support and troubleshooting for end-users of business-class computer systems.
- Assisted in the creation and maintenance of Active Directory user accounts and data backups.

## **EDUCATION**

App Academy - (3% acceptance rate, 1000+ hours) Immersive full-stack software engineer course (Fall 2019)

Bergen Community College - Courses in Network Administration (Fall 2016)

Montclair State University - BS - English (Spring 2015)