

# Ryan Woods

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**Skills** JavaScript, React.js, Redux.js, Ruby, Ruby on Rails, HTML5, CSS3, Git, Python, PostgreSQL, jQuery, Node.js, Docker, MongoDB, GraphQL / Apollo, Express.js, Webpack, SASS, RSpec, AWS, Matlab, C, C#, C++, Swift, VS Code

## Projects

**Koala** (JavaScript, MongoDB, Express.js, React/Redux, Node.js, HTML5, CSS) [Live Site](#) | [Github](#)

*Koala-themed question forum based on Quora*

- Implemented voting system tied to questions, answers, and users through database associations and an top-level React State
- Designed and coded a custom search bar that displays live updates via React State to find and autocomplete matching results
- Utilized customized SVGS across the site for a more reactive user experience

**FantasyPay&Play** (JavaScript, MongoDB, Express.js, React/Redux, Node.js, Apollo/GraphQL, HTML5, CSS) [Live Site](#) | [Github](#)

*Fantasy football and football betting site rolled into one*

- Created and updated Player and Bet data models through weekly API calls to NFL and betting odds databases through Apollo / GraphQL mutations
- Set-up smooth and agile updates to filterable "Players" table through custom GraphQL queries
- Built weekly Cron-job tasks that utilize a custom algorithm, which evaluates win-loss values for both bet and fantasy matchups, based on incoming API data

**Spoti-Fly** (JavaScript, React / Redux, Ruby / Rails, HTML5, CSS, PostgreSQL) [Live Site](#) | [Github](#)

*Bug-themed music site based on Spotify*

- Incorporated Rails' polymorphic association pattern with ActiveRecord to limit database constraints
- Integrated and modified a site-wide music player from a node library using a top-level react state to keep track of a running song queue throughout child components
- Built a custom search bar which incorporates live updates via React State to find and autocomplete matching results

## Experience

Circuit Lab (MA/RI)

June 2018 - August 2018

### **Head Instructor**

- Taught students ages 5-13 in classes of 6-20 how to build projects from craft stick flashlights to self-driving cars and program through Scratch, Arduino IDE, App Inventor, and other programs

Colgate University Physics Department (Hamilton, NY)

Aug 2016 - Dec 2016, Aug 2017 - Dec 2017

### **R&D Assistant**

- 2016: Researched bluetooth arduino microcontrollers, created circuit demos, wrote manual for use in Electronics Course
- 2017: Researched and tested low-cost Bluetooth microcontrollers for use in transferring voltage signals from a custom thermocouple circuit to smartphone interface

CAB (Sömmerda, Germany)

Jan 2016 - Feb 2016

### **Electrical Engineering Intern**

- Programmed Cypress microcontrollers through C# and an I2C bus for use in a wire testing circuit, which tested third party wires for defects

## Education

### **App Academy**

July 2019 - Dec 2019

Immersive software development course with focus on full stack web development

### **Brown University(Incomplete)**

Aug 2018 - Dec 2018

Master's in Electrical and Computer Engineering

### **Colgate University**

Aug 2014 - May 2018

Bachelor of Arts, Physics & German; Overall GPA: 3.3/4.0

- *Selected Coursework:* Math Methods in Physics, Electronics, Upper-Level Electricity and Magnetism, Computational Mechanics, and Bluetooth Microcontroller Design