Ryan Sabik

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SKILLS React, Rails, Node.Js/Express, JavaScript, Ruby, Redux, C++, Java, Python, HTML5, CSS3, SQL, Git, Agile

EXPERIENCE

General Motors   **Warren, Michigan**
Software Engineer   June 2018 – June 2019
- **Embedded / Backend engineer** on the Voice Assistant / Recognition team, part of the Infotainment Vehicle Engineering group.
- Worked with cross-discipline engineering teams to develop C++ and Java Android Platform API, in the JNI/Native Layer, routing voice input (e.g. 'play song Symphony no. 9 from Beethoven') from the microphone to one of multiple voice assistants.
- Domain leader of the TTS (Text-to-Speech), translating Android API calls into C++/Native socket calls, in order to offload processing to a third-party Voice Assistant to process.
- Maintained legacy C++ code base, optimized multithreading and concurrency, leading to a more responsive voice assistant.
- Developed python automation testing frameworks, promoting ease of reproducing defects, and system-wide integration testing.

US Army (TARDEC)   **Warren, Michigan**
Software Engineer   May 2017 – June 2018
- Operated as a **Full Stack engineer** as part of the Robotics Engineering Team at an Army research base. (TARDEC - Tank Automotive Research and Design Engineering Center)
- With C, developed the sensor XML message (tinyxml2 library) parsing API component for a robotic platform.
- Developed AngularJS javascript frontend features, from displaying the signal strength, to the Robotic Joints Revolution speed.
- Developed Python tools to automate testing of the robotic platform controller, using Wireshark to sniff and spoof network traffic.

PROJECTS

Twitch.tv clone (Ruby on Rails, JavaScript, React, Redux, Webpack, PostgreSQL, Nginx, Centos, HLS)   [Live Site](#) | [Github](#)
A clone of twitch.tv supporting full live streaming.
- Utilized AWS and S3 cloud services, with Rails ActiveStorage, in order to host and display a user's profile picture, and various streaming category thumbnails offloading image storage and fetching.
- Built a user authentication system using BCrypt, allowing users to follow other users, and users to be followed.
- Configured a Linux/Centos server to accept RTMP streams and HTTP GET requests, in order to facilitate live video streaming.
- Front end built using React/Redux components to allow a seamless user experience on a modern single page application.
- Implemented a responsive layout, by leveraging Flexbox and the React-Redux lifecycle, dynamically resizing React components.

Don't Die Together (JavaScript, React, Redux, Node.js/Express, MongoDB, WebSockets)   [Live Site](#) | Github
A group-developed multiplayer zombie survival shooting game.
- Sole developer of the Express server backend, and web socket implementation in both backend and frontend. Built multiplayer communication utilizing the socket-io and socket-io.client libraries, allowing TCP connections between the Host and clients.
- User authentication through MongoDB, Mongoose, and JSON-webtokens, forcing unique usernames and secure passwords.
- Designed and developed API restful routes for user information and gamestate saving and fetching.
- Aided in developing React/Redux components, such as user login forms, and controlling the overall Redux store design.
- Git workflow lead, taught team members how to utilize Git in a collaborative environment, including best practices for branching and pull requests, helping minimize merge conflicts, and aiding in resolving them until the team members were autonomous.

EDUCATION

App Academy   **San Francisco, California**
*Curriculum of Study in **Web Development** (Ruby on Rails and JavaScript)*   June 2019– October 2019

University of California, Riverside   **Riverside, California**
*Bachelor of Science in **Computer Engineering***   Class of 2015