



# Bryan Ling

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## SKILLS

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- **Languages:** JavaScript, TypeScript, Python, C++
- **Frontend:** React, Redux, Material-UI, styled-components, Apollo Client, GreenSock, Adobe XD
- **Backend:** Node.js, Express, Flask, MongoDB, Jest, Git, Docker, Firebase, OpenCV, Jira, Clickup

## WORK EXPERIENCE

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### Applied Brain Research - *Frontend Engineer Intern*

Jan 2021 - Apr 2021

- Deployed an NPM Graphing Library used across internal projects to plot real-time AI training, confusion matrix, and neuron activity data using **React**, **Typescript**, **SVG** and **styled-components**
- Developed a cloud interface for clients and internal use with a reusable table component supporting inline editing and sorting with **React**, **Apollo Client**, and **Material-UI**
- Designed an NPM template package used in current and future projects for **CI** with **Husky**, **Prettier**, and commit-linting

### Cognitive Systems - *Software Engineer Intern*

May 2020 - Aug 2020

- Streamlined a manual data visualization process for the data science team by deploying a web app to display changes in a WiFi network with **React** and **ChartJS**
- Automated the detection of quiet samples from WiFi Router data by integrating a **Flask** backend for the web app after documenting experiments using **Matplotlib** and **NumPy**

### Ontario League of Associated Esports - *Full Stack Developer*

Feb 2019 - Aug 2019

- Built website for **300 concurrent users** with a real-time matchmaking system, user authentication, and player statistic displays with **React**, **Redux**, and **Firebase**
- Integrated **Node.js** statistics backend with data from the Riot Games API to identify provincial-level candidates
- Automated social media content generation using PIL and MoviePy in **Python**
- Conducted user testing by developing and auditing a frontend prototype with **Material-UI** and **Adobe XD**

## PROJECTS

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### Overwatch League Arena - *In-Person Esports Event Stadium Simulation*

- Contacted by **Blizzard Entertainment** to create a feature, sponsored by **Coca-Cola**, after the project generated a combined **10,000** views across Reddit and Youtube
- Developed character timeline animations using **React**, **Redux**, and **GreenSock** to sync with computer vision detected events from video footage using **OpenCV** and **Socket.io**
- Automated character video loop finding with **OpenCV** and the collecting of team branding assets with **Puppeteer**

### Crambarry - *Gamified Classroom Social Web App*

- Application approved by Waterloo Region District School Board for student use
- Developed a roulette rewards system, customizable player profiles, a multi-user flashcard generator, discussion forums, and chat rooms using **React**, **Redux**, and **Firebase**

### Clip Ship - *Browser Video Editor for Twitch.tv*

- Built a Twitch live stream clip editor to assist content-creators in creating video compilations using drag and drop timeline features built with **React** and **Redux**
- Created a RESTful API backend with **Express**, **FFmpeg**, and **MongoDB** to store user data and render video files
- Published as a multi-container application with **Docker-compose**

## EDUCATION

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University of Waterloo, Software Engineering

Expected 2019 - 2024