

# BRAYDEN O'NEIL

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## EDUCATION

### Western University

Bachelor's of Science, Major in Computer Science

September 2021 - April 2025

**Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Computer Science Fundamental I & II

## PROFESSIONAL EXPERIENCE

### PCL Construction

Incoming Software Developer Intern

Edmonton, AB, Canada (On-Site)

Summer 2024 - Winter 2025

- This summer I will be starting an 8-month internship at PCL Construction, where I will be furthering my experience with: C#, .NET, Angular 2+, Typescript, REST APIs, SQL, Azure, Entity frameworks, and Xamarin Forms.

### Toggle

Full-Stack Software Engineer Intern

Berkeley, CA, USA (Remote)

December 2022 - July 2023, October 2023 - Present

- User's submitted PDFs, which were converted to text by Google's Tesseract API, and given to GPT-4 through Open Ai's API to answer user's questions (before GPT-4 image analysis).
- Built a database to store this information using SQL with Node.js and Express for REST API engineering.
- Developed the front-ends of: A web app using React with JavaScript, HTML, and CSS, and a desktop app using Flutter with Dart. Both included a full calendar with the ability to import events from various productivity platforms.
- Mastered collaborating with a team through GitHub, and came up with original UI/UX design ideas with the design team.

## PROJECTS & ACHIEVEMENTS

### Western Developers Society Overhaul Hackathon 2023 | 2nd place | JavaScript, HTML, CSS, NodeJS, SQL | [GitHub](#)

- Created a note taking web-app optimized for the impaired, included TTS, live dictation, live translation, and font-resizability.
- Used various APIs for accessibility, such as JavaScript's Speech Recognition and Speech Synthesis, and the Google Cloud translate API for live translation as the user spoke and/or typed.
- Created a full front-end with Javascript, HTML, CSS, and a full back-end for data storage with Express and NodeJS for a REST API and SQL for the database in the 36 hours given.

### Western AI Case Competition 2023 | 3rd place

- Conceptualized an AI based solution to improve human connection in video calls when quality drops.
- Computer Vision, General Adversarial Networks, Frame Upscaling using Neural Networks, and 3D model of the user's face.
- Was awarded 3rd place out of 35 teams, a testament to my love for group work and collaboration.

### Alarm Car | Python, C, C++ | [GitHub](#)

- Alarm clock on wheels that sets off an alarm at a user-defined time, and drives around the room until the user disables it.
- Built the car from scratch, including the addition of a Raspberry Pi to allow for custom functionality.
- Wrote a python script to modify the car's actions, which involved randomized movement when the alarm time is reached.
- Customized the functionality of the servo motors, motors, alarm buzzer, LEDs, and ultrasonic module.

### NBA Player Statistic Comparison | JavaScript, HTML, CSS, React | [GitHub](#)

- Looked to compare NBA players' overall ability using an algorithm that assigns different weights to each statistic.
- Used a public third-party NBA API to fetch stats for players from seasons ranging from the beginning of the NBA to present.
- Developed the entire front-end of this web app, gaining indispensable experience and knowledge in front-end technologies.

### The X-Plus Game | Java

- Users play against a computer opponent to form an X or a plus of minimum user specified length on a dynamic tile board.
- The computer decides what move to make based on how many levels of depth are in its game tree, user specified amount.
- Gained an understanding of basic artificial intelligence models; Applied this understanding in developing these algorithms.

### Study Helper Chrome Extension | Javascript, HTML, CSS, JSON | [GitHub](#)

- The chrome web store lacked an app to plan a study session in a simplified manner, which is imperative for good studying.
- Allows users to set timers and break times to list and plan their study session in a straightforward, effortless manner.
- Sends the user a text message using the Twilio API running on a backend server I built when a task/all tasks are complete.

## SKILLS

**Languages & Frameworks:** Python, Node.js, AWS, JavaScript, TypeScript, HTML/CSS, Java, C/C++, JSON, React.js, React Native, SQL, Express.js, Tensorflow, Pandas, Django, AngularJS, Flask.