BRAYDEN O'NEIL

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EDUCATION

Western University **September 2021 - April 2025**

Bachelor's of Science, Major in Computer Science

Relevant Coursework: Data Structures and Algorithms, Databases, Software Engineering, Operating Systems, CS Fundamentals.

PROFESSIONAL EXPERIENCE

PCL Construction **Edmonton, AB, Canada (On-Site)**

Incoming Software Developer Intern *May 2024 - December 2024*

- 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.

IBM **London, Ontario, Canada (On-Site)**

IBM Z Student Ambassador *March 2024 - Present*

- Recognized by IBM for my leadership, given the opportunity to spread Mainframe technology across my campus.
- Western University was the #1 school in Canada for IBM Z Xplore signups after my club's launch event conducted by me.
- In preparation for this role, I completed the IBM Z Xplore platform, receiving the Concepts & Advanced certification badge.

Western Cyber Society **London, ON, Canada (On-Site)**

Vice President of Technology & Project Manager *December 2023 - Present*

- Directing and mentoring a team through the creation of an in person event which involves leveraging various technologies ReactJs, Express, Java, Python, Db2/SQL, COBOL & JCL to make a student center that runs completely on the mainframe.
- Includes a schedule generation algorithm I wrote in python, allowing students to generate a schedule based on the courses that they need to take, producing a full course load with no time conflicts, tailored to the student's needs.

Toggle **Berkeley, CA, USA (Remote)**

Full-Stack Software Engineer Intern *December 2022 - July 2023, October 2023 - December 2023*

- 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.

Forever Flashcards | *Angular 2+, Typescript, HTML, CSS* **| GitHub**

- Generates flashcards with just a few keywords using a Large Language Model (LLM) from Open AI's API.
- Flashcards can be generated with dictation, when recording completes the flashcards are created based on what was said.
- Users can edit cards, save decks, load saved decks, delete decks, and enter study mode to increase focus.
- Worked hard on UI/UX to ensure a smooth simplistic user experience, providing an easily accessible experience

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.

SKILLS

Languages & Frameworks: Python, Node.js, AWS, JavaScript, TypeScript, HTML/CSS, Java, C/C++, React, Angular 2+, React Native, SQL, Express.js, Django, Zowe, z/OS, COBOL, JCL, REXX, TSO, Docker, Git.