

Brett Adams

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[in linkedin](#) | [github](#) | [website](#)

EDUCATION

Honours Computer Science with Software Engineering Specialization Co-op

University of Windsor

Sep 2022 - Present

Windsor, ON

SKILLS

Programming Languages Python | Java | C++ | C | JavaScript | HTML | CSS | TypeScript | VB

Technologies Flask | React.js | Git | Docker | MySQL | Bootstrap | PowerPlatform Tools

EXPERIENCE

Developer - Summer Student

Apr 2024 - Sep 2024

CIMCO Refrigeration

Burlington, ON

- Developed and maintained Flask web applications using Python, HTML, CSS, and JavaScript, focusing on integrating APIs to deliver real-time data and insights for NHL arenas, including a comprehensive web interface and thermal imagery support system.
- Designed and delivered hands-on training sessions for over 20 employees, equipping them with foundational Python programming skills, enhancing the team's technical capabilities.
- Engineered a Python-based automation tool that streamlined data collection and storage for CAG engineers, to increase in accuracy and operational efficiency when managing controller values.
- Diagnosed and resolved issues within existing codebases, improving functionality and stability by identifying and fixing critical bugs and optimizing legacy code written in Python and Visual Basic.

Digital Solutions - Summer Student

Apr 2023 - Sep 2023

CIMCO Refrigeration

Burlington, ON

- Developed Microsoft Power Platform tools to enhance operational efficiency and user experience.
- Worked with SharePoint and automate processes to streamline workflows.
- Collaborated with cross-functional teams to identify and solve technical challenges.

NOTABLE PROJECTS

NHL Web Interface

July 2024 - Sep 2024

Python based web application for displaying data and alarm information for NHL arenas

CIMCO Refrigeration

- Led the development of the web application using Flask, creating a robust backend framework that enabled real-time data interactions and dynamic updates.
- Engineered a data aggregation pipeline in Python, integrating with two APIs to extract and aggregate data, which was then stored in formatted JSON files for structured access and scalability.
- Developed comprehensive HTML pages with CSS and JavaScript to present crucial arena data and alarm information, enhancing visibility and operational responsiveness.
- Collaborated with team members to brainstorm and refine project ideas, leveraging collective insights and feedback, while independently executing the development tasks to bring the project to fruition.

MazeFinder

Mar 2024 - Sep 2024

C++ application for solving 20x20 mazes using genetic algorithms

Independent

- Independently engineered a robust C++ application that applies genetic algorithms to effectively solve complex 20x20 maze challenges.
- Optimized performance through the implementation of a custom thread pool, enabling parallel processing for faster genome fitness evaluations.
- Developed dynamic mutation and crossover strategies to enhance the genetic algorithm's ability to discover and refine optimal paths.
- Utilized advanced C++ features, including multi-threading, to ensure high performance and scalability.
- Designed and maintained a flexible maze representation using 2D vectors, allowing for easy adaptation to different maze configurations.

SpotifyStatsViewer

Jan 2024 - Mar 2024

Python based web application for displaying Spotify listening statistics

Independent

- Developed a web application using Flask, and integrating Spotify's Web API, to display users' Spotify listening statistics, including top artists, tracks, genres, and playlists.
- Implemented secure OAuth authentication using Python to ensure user privacy and secure access to Spotify data.
- Designed an intuitive user interface with HTML/CSS to present statistics in a visually appealing and user-friendly manner.
- Optimized data retrieval and processing for real-time updates, enhancing the application's responsiveness and user experience.