

# Matthew Belanger

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## Education

### University of Windsor

Windsor, ON Canada

BACHELOR'S DEGREE IN **COMPUTER SCIENCE** AS A **SOFTWARE ENGINEERING SPECIALIST** WITH A MINOR IN **MATHEMATICS**.

Sept. 2018 - April 2022

- Recipient of the Deans Renewable Entrance **scholarship** given to graduating students who show **strong academic performance**.
- Recipient of the SHSM **scholarship** for receiving the **ICT-SHSM** seal on my **OSSD** after meeting the requirements from the Ministry of Education.

## Independent Projects

### Discord Bot Host

July 2020

JAVA WEB-SOCKET APPLICATION WHERE THE USER UPLOADS THEIR OWN DISCORD BOT AND HOST IT ON A DEDICATED MACHINE.

- **Client** application implements **JAVA Swing** for an intuitive **GUI**.
- **Server** application uses **multi-threading** to allow for multiple bots to be hosted at once.
- **Server** application will **host** the bot automatically once it is received by the **client** application.

### Spotify App

April 2020

JAVA APPLICATION THAT MODIFIES USERS SPOTIFY PLAYLISTS AND QUEUE.

- Implements the **Spotify Web Client API for JAVA** to give the user a quick and easy way to add songs to their queue.
- Input is prompted by an instinctive terminal interface for a quick and simple user experience.
- Utilizes an **automated authentication** process for quick access to the the main functionality of the program.

### Code Grader

Mar. 2020

A JAVA SERVER CLIENT APPLICATION USED TO GRADE C PROGRAMS.

- A **JAVA** application where a **Windows client** sends a **C** program to a **Linux server** to be ran against test cases to generate a **submission report**.

### Bipartite Graph Generator and Detector

Nov. 2021

C PROGRAMS THAT CAN GENERATE AND DETERMINE IF A **GRAPH** IS **BIPARTITE** EFFICIENTLY.

- These programs apply **Graph Theoretic Principles** and a **DFS** to scan for/avoid **odd cycles** to satisfy the odd cycle property of **bipartite graphs**.

## Skills

**Operating Systems:** Linux, Windows

**Programming:** JAVA, C++, Python, C, Scheme, Racket, LaTeX, Bash, FLEX, CUP

**Website Development:** HTML, CSS, JavaScript, PHP, SQL, REST API

## Work Experience

### Teaching Assistant

Windsor, ON CANADA

SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF WINDSOR

Aug. 2019 - April 2022

- Responsible for communicating the abstract steps of **problem solving** in an intuitive manner to students and grading coursework accurately.

### Sales Associate

Amherstburg, ON CANADA

OSL RETAIL SERVICES

Aug. 2020 - Present

- **Top Wireless Sales Associate** for Western Ontario in 2021.
- Responsible for **diagnosing and correcting** issues with **mobile software and hardware**, this includes **troubleshooting network connection** issues, **configuring UI settings** and ensuring complete **data transfer** between devices for clients.

## Competitions and Conferences

### WinHacks

Windsor, ON Canada

PARTICIPANT

Sept 2020

- Created the Smile Finder **Web App** that detects when the user is smiling using the **ImageAI Python API**.
- Smile Finder implements the **Flask** framework for **Python** to host the **Web App**.
- Smile Finder utilizes the **OpenCV** Python API for **computer vision** and displays the live video feed on a **web-page**.

### Delta Hacks VI

Hamilton, ON Canada

PARTICIPANT

Jan 2020

- Gained experience with **REST API's** and **mobile development** while learning the fundamentals of **Dart** and **Flutter** programming.