Alan Bui

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#### EDUCATION

# • Vincent Massey Secondary School

Honour Roll with Distinction, 4.0 GPA

Sept. 2020 - June 2024 Windsor, ON

# Programming Skills

• Languages: Python, C++, Java, HTML, CSS, JavaScript, MySQL, Dart, R

• Technologies: React, Ionic, Node, Firebase, Express, Git, Flutter

## EXPERIENCE

• Code in Place Stanford, CA

Section Leader

April 2023 - June 2023

• Python: Taught the first half of Stanford's CS106A to a class of 15+ students from across the globe. Taught control flow, graphics, and data structures using **Python**.

## • Vincent Massey Computer Science Club

Windsor, ON

Sept. 2022 - Present

- Lesson Plans: Created lesson plans to teach high school students algorithms and data structures using Python and C++ (e.g. Dijkstra's, stacks, queues) in preparation for the Canadian Computing Competition.
- Contest Problem Setter: Developed 30+ programming problems with editorials based on the material taught in lessons. Validated contest submissions by creating test cases and judging them on DOMJudge.

# • MasseyHacks IX

Windsor, ON

Organizer

Sept. 2022 - Present

- Organizer: Planned and hosted Canada's oldest high school hackathon for 130+ attendees.
- Mentor: Assisted participants with their projects in HTML, CSS, JavaScript, and Python.

#### • Windsor Chess Enrichment Program

Windsor, ON

Co-founder and Web Developer

Sept. 2022 - Present

- Co-founder: Planned logistics and curriculum for a chess club to support 100+ youth.
- Author: Wrote and published a chess book, giving free access to 9000+ individuals.
- Web Developer: Curated and maintained the website on GitHub Pages, made posts using Markdown, and curated specialized training programs using React.

# Projects

#### • Fast-Slow Debugger

Waterloo, ON

Hack the North

Sept. 2022

• Debugging tool: In a team of two, created a debugging tool that runs two Python programs to compare their outputs against inputs from a test set generator and presents any mismatches. Used **Python** to take code files, execute them, and compare the outputs against test sets. Added support for Java after Hack the North.

• EchoChess Windsor, ON

MasseyHacks VIII

May 2022

- o Discord Bot: Built a Discord bot in Python to allow users to input a picture of a chess scoresheet and output a pgn file of the recorded game and analyze a player's most recent Chess.com game.
- Amazon Textract: Used Amazon Textract API to scan images for text and used Python to organize strings into the correct format and correct commonly misinterpreted letters and numbers.

#### Achievements

- Hypatia Mathematics Contest Rank 1 in Canada, 2023
- Euclid Mathematics Contest National Honour Roll, 2023
- Canadian Computing Competition National Honour Roll, 2021-2022