# Aidan Wang

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# EDUCATION

#### University of Toronto, St. George

Computer Science and Cognitive Science

Sept. 2025 - Apr. 2029

# William Lyon Mackenzie Collegiate Institute

Math and Computer Science Program, GPA: 97.4%

Toronto, ON Sept. 2021 – June 2025

#### EXPERIENCE

### Sunnybrook Research Institute

Toronto, ON

Toronto, ON

High School Intern

July 2024 - Aug. 2024

- Supervisors: David Martin & Dr. Meaghan O'Reilly
- Selected out of 300+ applicants for Focused Ultrasound High School Summer Research Program
- Implemented convolutional neural networks (CNNs) with U-NET architecture in TensorFlow
- Applied human CT-trained U-NET segmentation model to pig CTs in live experiments for spinal cord therapy
- Reduced 3D vertebrae model generation time from 3+ hours to 5 minutes

# PROJECTS

# **LookAhead** | Python, Google Vision AI, OpenCV, PyAudio, SpeechRecognition

- Hack the North Submission @ University of Waterloo
- Digital voice-activated assistant that describes objects to the blind using AdHawk eyetracking glasses
- Matched pupil-focus coordinates with Google Vision item boxes to deliver descriptions based on user gaze

# Sort the 6ix | Python, Flask, React Native, HuggingFace, Google Vision AI

- Hack the 6ix Submission @ Toronto Metropolitan University
- Mobile app that informs user how to dispose of waste based on a real-time photo
- Used HuggingFace language model to classify Google Vision-generated image tags with Toronto Waste Wizard dataset for disposal instructions

#### Fever Fighters | Java, Swing API

- ICS4U Final Project @ William Lyon Mackenzie C.I.
- Single-player children's game where players learn how to survive a cold in three levels
- Demonstrated object-oriented programming for all sprite classes

#### ChemSim | JavaScript, Canvas, Fetch API

- ICS3U Final Project @ William Lyon Mackenzie C.I.
- Website with a 2D organic molecule builder and IUPAC name generator to support chemistry students
- Converted user-generated diagram into SMILES notation and inputted into PubChem library to retrieve name
- Developed HTML Canvas front-end with buttons for elements, bonds, editing tools, & IUPAC name display

#### AWARDS

Gold Medal North American Computational Linguistics Olympiad (NACLO)	March 2025
Bronze Medal International Linguistics Olympiad (IOL)	July 2022
$\textbf{Honourable Mention ($\times$2)}  \textit{International Linguistics Olympiad (IOL)}$	July 2024, 2025
1st Place in Behavioral Health HOSA International Leadership Conference (ILC)	June 2024
1st Place & Nationals Qualifier University of Toronto Brain Bee	March 2024
Honour Roll (Top 5%) Canadian Computing Competition (CCC)	Feb. 2024

## SKILLS

Languages: Python, Java, JavaScript, HTML/CSS Libraries: TensorFlow, PyTorch, NumPy, Matplotlib