Ryan Sun

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EDUCATION

University of Toronto Toronto, ON
Bachelor of Applied Science in Computer Engineering + **PEY Co-op | GPA: 3.8** *September 2025 - June 2030*
Coursework: Eng Strategies Practice I/II, Mechanics/Dynamics, Calculus I/II, Linear Algebra, Computer/Electrical Fundamentals

Longfields Davidson Heights Secondary School Ottawa, ON
Ontario Secondary School Diploma *September 2021 - June 2025*

SKILLS

Languages/Frameworks: Java, Python, C++, PHP, C, HTML/CSS/Javascript, React, Node.js, Laravel, Google AI API, OSMnx
Tools: Git, Visual Studio, Github, Excel, Arduino IDE, Altium
Professional: Teamwork, Communication, Leadership, Attention to Detail, Problem Solving, Creative, Time Management

EXPERIENCE

Watercraft Electronics Subteam October 2025 - Present
Human-Powered Vehicle Design Team *Toronto, ON*
- Contributed to the test rig of a hydrofoil, consisting of a RC boat with actuators and ultrasonic sensors powered by **Arduino**.
- Applied **project management** techniques to define the project requirements and ensure all decisions were fair and certain.

Logistics Associate September 2025 - Present
IEEE University of Toronto Chapter *Toronto, ON*
- Planned the logistic setup for our hackathon called NewHacks to ensure the fluidity of the event for over **300 participants**.
- Assessed over **60 applications out of 1000** for admission to our hackathon to evaluate the best participants for our event.
- Created applications questions for another hackathon called MakeUoft in order to get the most out of the applicants.
- Communicated with other subteams during weekly meetings to ensure all information is known throughout.

Club Leader September 2024 - June 2025
Longfields Davidson Heights Secondary School Code Club *Ottawa, ON*
- Prepared lesson plans and slide-decks for weekly workshops to provide good visualization for the participants of these events.
- Mentored **20-30** students in coding skills such as **Python fundamentals**, data structures, and **object oriented programming** to educate the youth and enhance their interest and knowledge.
- Created a fighting platformer game using the **Godot** game engine with the collaboration of the entire club.
- Guided students through the answers of the problems while ensuring full understanding of the steps in order for students to validate their own responses and knowledge.

Full-Stack Web Developer July 2024 - August 2024
Sharkbyte *Ottawa, ON*
- Explored the fundamentals of web development through the usage of **PHP** and **Laravel** in order to perform company's tasks.
- Communicated constant updates, errors and improvements to higher authorities to allow for smooth work operation.
- Developed a full-stack web application about vacation planning to allow users to have more ease in organizing trips.

Team Member March 2023 - May 2023
Ottawa STEM Club Ottawa Robotics Competition *Ottawa, ON*
- Developed an algorithm using **C++ language** through the Arduino IDE for our robot to traverse through an obstacle course.
- Debugged errors within the software and hardware side of the robot and communicated it with the entire team to fix all problems as soon as possible.
- Adapted to problems during competition and critically thought through solutions in order to succeed in the competition.

PROJECTS

Navion | UTEK January 2026
- Developed a route optimization app designed for first-responders to travel to destinations in the shortest time possible.
- Utilized Python to apply the **A* algorithm** to find the shortest path between points through over **25 000 nodes**.
- Employed the **OSMnx library** to create the map of nodes/edges and displayed the result using **HTML/CSS/Javascript**.

ReelScout | NewHacks October 2025
- Developed a tourism reel analysis app to educate viewers on the tourism aspect of their reel.
- Implemented the **Google AI API** to analyze the reels uploaded and to output the details.
- Created a minimalist layout with the **React** library to provide good initial impressions for the judges.

Biology and Chemistry App February 2023 - January 2024
- Developed a biology app to educate students on the human body and diseases, using **Python** and the **Tkinter** library.
- Incorporated a chemistry app to educate students on Grade 11 Chemistry verified by teachers, through **Java and JavaSwing**.
- Utilized **GitHub** to update code commits as well as showing collaboration performance of each member.