

LEO LIU

Toronto, Canada | (437) 351-9383 | [linkedin.com/in/leoliu12](https://www.linkedin.com/in/leoliu12)

Awards & Honours

- STEM Fellowship Big Data Challenge Winner** – February, 2023
- UWaterloo CIMC Mathematics Contest 36th/7819** – October, 2020
- UWaterloo Euclid Mathematics Contest 504th/22372** – May, 2022
- American Invitational Mathematics Exam (AIME) Qualifier** – November, 2022
- Canadian Computing Competition Distinction For 4 Years** – 2020 – 2023

Education

- Collège Jean-Eudes (2019-2021)**
Montreal, QC | GPA: 93/100
- Crescent School (2021-2023)**
Toronto, ON | GPA: 97/100 | SAT: 1550
- University of Michigan (2023-2027)**
Ann Arbor, MI | College of Engineering

Activities & Experience

Mar 2022 – Present **Information Team Lead** | Canadian Young Physicists' Tournament

- Oversaw information and management aspects of the national physics tournament.
- Established a sustainable online tournament management system for more than 400 users across 4 years using Flask and SQLite.
- Led a team of 4 members to maintain and update the system.

Nov 2021 – Apr 2023 **Executive** | FIRST Robotics Competition Team 610

- Researched and designed autonomous and vision routines for the robot in Java.
- Created a State-space system to simulate the robot's position.
- Designed a scouting application with Next.js-Neo4j stack to collect, visualize, and analyze data for other robots.
- Won district event, finished as district runner-up and World Championship division finalist.

Mar 2020 – Present **President** | CodingIsFun

- Oversaw non-profit organization providing free programming education to youths.
- Over 3 years of commitment, the organization grew from 20 members to over 800 students and 25 teachers.
- Developed teaching curriculum and trained volunteers in teaching more than 1000 hours of free lessons.

Projects

Sep 2021 – Jan 2022 **Research** | Proximity to Amenities – Demographics & Educational Attainment

- Developed a novel method for querying proximity data for houses worldwide using Python and various mapping APIs, resulting in valuable insights on fair housing.
- Won 1st place out of 160 teams in the Big Data Challenge and pending publication from the STEM Fellowship journal, demonstrating exceptional skills in data analysis and innovation.

Jul 2022 **Summer Program** | Shad Canada

- Conducted quantitative research on the well-being of Canadian youths and identified key issues such as lack of physical activities for groups needing accommodations.
- Led a team of 7 to create an insulin pump holder and maintenance device to enable youth with type-I diabetes to participate in sports.
- Selected to participate in Shad Canada, a prestigious STEAM & Entrepreneurship enrichment program.

Aug 2020 **Website** | Covid19pulse

- Led a team of 5 developers to create a website that tracked, displayed, and compiled Covid-19 information.
- Utilized Numpy and Pandas to handle large amounts of data and displayed them on maps with Folium.
- Created a Machine Learning model to predict the growth of cases to 60% accuracy.

Skills

Python ●●●●●
Java ●●●●●
C++ ●●●●○

React.js ●●●●○
Statistical Research ●●●●○
Machine Learning ●●●●○

SQL ●●●●○
Data Vis. ●●●●○
Teamwork ●●●●●

Languages

English – **Bilingual Proficiency**
French – **Bilingual Proficiency**
Mandarin – **Native Proficiency**