

I am a grade 12 IB student passionate about competitive programming. I'm looking for research and internship opportunities to develop my skills and knowledge in computer science further.

Employment

Contract Part-Time Instructor, Under the GUI Academy, Feb 2023 - Present

North Vancouver, BC

- Spend 4 hours a week to instruct kids in Python, web and game development, AP CS, and some other basic coding concepts.
- Manage a private classroom, monitor student progress, and adapt teaching style to meet individual needs.
- \$21/hour

Internships

Software Engineer, Wolfram Research, Inc., Aug 2024 - Present

Remote

- Contributed 35 programming functions to Mathematica.
- Invited to weekly meet with the Wolfram CEO to discuss his book-writing ideas.
- Join in Wolfram technology conferences and promote Wolfram Hackathons.

Extracurriculars

Researcher, First Author

Wolfram Research, Inc., Grade 11 - 12

- Guided by two Caltech mentors.
- Topic: Constructing combinators for arithmetic and arbitrary-length bitwise operations.
- Publishing paper in Complex Systems Journal with fee waived.

Co-Founder, President, Hackathon Director

Happy Hackers Foundation, Grade 10 - 12

- Co-founded a non-profit organization for inclusive STEM.
- Hosted over 10 workshops and 5 hackathons.
- Attracted 586 participants from 28 countries and oversaw 98 projects.
- Raised over \$4k in cash and over \$60k in equivalents.

Contest Director, Problem Setter

Modern Online Judge, Grade 9 - 11

- Hosted 3 major online coding contests on Canada's premier contest platform.
- Attracted over 1.2k contestants, including the world champion and many top programmers.
- Created 24 algorithmic tasks and supervised 5 contests.
- Actively wrote editorials.

Independent Developer

ArtifAI, Grade 11

- Live project: <https://artifai.aj-coder.com>
- The copyright solution to AI in art (detect AI-generated art and its origins).
- Attracted over 420 users and 6.4k uses.

Participant, Student Ambassador

Shad Canada, Laurentian University Campus, Grade 10

- Attended over 50 workshops on AI, finance, leadership, and startups.
- Created a team project on affordable housing and presented it to over 200 attendees.
- Build networks with STEAM peers.

VEX Robotics

TENTON Academy, Grade 9 - 10

- Team captain and responsible for programming and partial building.
- Attended over 10 tournaments per year.
- Wrote complex robotics control algorithms.

Full-Stack Game Developer

Grade 5 - 10

- Created and published 30+ original games on Unity, Scratch, Pixelpad, and Codemao for 5 years.
- Received 50k plays, 14k likes, 10k collected, 20k re-creates, 6.3k followers.
- Programming and UX & Interaction Designing
- Actively joined in the creator community.

Community Services

Instructor (120 volunteer hours)

Coding Girls, Oct 2022 - Apr 2023

- Guided 5 kids with leukemia in block coding and computer science history
- 4 hr/week and 30 weeks

Teaching Assistant (64 volunteer hours)

Under the GUI Academy, Oct 2022 - Jan 2023

- Helped students understand and review complicated coding concepts
- 4 hr/week and 16 weeks

Honors and Awards

Canadian Computing Olympiad

- Canadian Computing Competiton internationally 7th place out of 10,132 participants (5th place nationally).
- Invited to participate in a one-week training camp and two-day competition at the University of Waterloo.
- **Silver Medalist and 7th place in the Canadian Computing Olympiad, 10 points from the International Olympiad in Informatics**

USA Computing Olympiad

Ranked top 100 in the USA Computing Olympiad platinum division.

American Computer Science League

- American Computer Science League 2023 Senior Finals internationally 9th place, Silver medalist
- American Computer Science League 2024 Senior Finals internationally 9th place, Gold medalist & 1st place in the 4 qualifying contests.

VEX Robotics

- Qualified for the VEX Robotics World Championship in the 2021-2022 season.
- Went to Dallas, Texas for a 1-week competition.

University of California, Berkeley

CALICO Computing Competition Spring 2024 perfect score, 5th place out of 523 teams 914 participants, Gold medalist

University of Waterloo

- School champion of 4 math contests hosted by the University of Waterloo.
- Over 20 top 25% certificates.
- Over 10 honor rolls in CS/IMC, Euclid, CCC, etc.

West Vancouver Secondary School

Honor with Distinction for the past three years.

College Board

AP Scholar with Honor Award

School Activities

Founder and President

WVSS Computer Science Club, Grade 11 - 12

- Weekly instruct lessons in programming languages and algorithms.
- Guide preparation for computing competitions.

Founder and President

WVSS Game Development Club, Grade 10

- Guided students to build customized 3D games using Unity.
- Resulted in 3 published games on YouTube.

Co-President

WVSS Math Contest Club

- Book and run all University of Waterloo's math and coding contests at my school.
- Write solutions to contest problems.

Education

West Vancouver Secondary School, Sep 2020 - Jun 2025

International Baccalaureate Diploma

IB Math Analysis and Approaches HL (7/7)

IB Physics HL (7/7)

IB Mandarin B HL (7/7)

IB Chemistry SL(7/7)

IB Geography SL 12 (6/7)

Education

IB English Language and Literature A HL (5/7)

Testing

AP Calculus BC (5/5), May 2023

College Board

AP Computer Science A (5/5), May 2023

College Board

AP Statistics (5/5), May 2023

College Board

AP Computer Science Principles (5/5), May 2023

College Board

AP Calculus AB Subscore (5/5), May 2023

College Board

SAT 1520/1600 (EBRW 720 + Math 800), Aug 2024

College Board

Languages

English

Mandarin