Moses Xu

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EDUCATION

• University of Waterloo

Ontario, ON

Candidate For Honours Bachleor of Computer Science; GPA: 4.0

September 2021 - April 2026

o Coursework: Algebra (Advanced), Calculus (Advanced) (99%), Designing Functional Programs (Advanced) (98%)

AWARDS/COMPETITIONS

Canadian Computing Olympiad

Waterloo, ON

Silver Medallist

May 2021

• Canadian Computing Competition (Senior Division)

Waterloo, ON

Honour Roll Placements

Feb 2018, Feb 2020, Feb 2021

- Placed 1st out of 2901 participants (with a perfect score) in the 2021 Senior competition
- Placed in the Group 2 (top 2%) and Group 3 (top 5%) Honour Roll in the 2020 and 2018 Senior competitions respectively

• USA Computing Olympiad

Placed 33rd out of all pre-college participants in the USACO Open 2021 (Platinum Division)

2019 - Present

• Google Code Jam

2x Round 3 Qualifier, placed 165th in Round 3 2021

2019 - Present

EXPERIENCE

• Codeforces LATOKEN Round 1

Online

Organized algorithms competition with over 18,000 participants

May 2020 - June 2021

- o Organization: Worked with other problemsetters and Codeforces Administration to gather testers and ensure smooth delivery of competition
- Problemsetting: Generated ideas for problems, prepared problem statements and test data, created programs to validate correctness of data and graders

• DMOJ Problem Setter

Online

Organized and tested programming competitions

September 2019 - Present

- o Mock CCC: Problemsetter for two mock CCC (Canadian Computing Competition) contests in 2020 and 2021
- CPC: Organizer and problemsetter for CPC competition in 2020 and 2021
- o Olympiads School: Created tasks for Olympiads School computer contest quizzes held at the end of each term

Projects

• CP Tools

Python module for Competitive Programming

- Python module that contains a suite of tools for algorithms problems, including automated local testing, stress testing tools, and integration with browser extensions
- Formerly a VSCode extension written in TypeScript with Vue and the VSCode API with similar functionality

• Algorithms & Data Structures Library

60+ DS&A templates built to be easily integrated into existing solutions

- o Includes a variety of algorithms: graphs, strings, data structures, combinatorics and number theory, etc.
- Testing integration with GitHub actions and online-judge-tools/verification-helper to ensure correctness

LetterGrid

Head-to-head online multiplayer game made for Hack the North 2021

- Typing-based strategy game where players race to opposite to opposite corners of a grid while blocking opponents
- o Built using React for the UI and Flask on the backend

Programming Skills

• Languages: Python, C/C++, HTML/CSS/JS, Java **Technologies**: Django, React, Flask, LaTeX