

# Muxing (Nick) Liu

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## PROGRAMMING SKILLS

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**Languages:** Python, Java, JavaScript, HTML, CSS, C, C++, C#, LaTeX

**Technologies:** Node.js, Vue.js, Express.js, MongoDB, React, React Native, Git, GitHub

## PROJECTS

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### Meeting Catalyst

*Node.js, MongoDB, Vue.js, Vuetify*

- Developed a meeting scheduling web application that allows users to coordinate meeting times with colleagues.
- Efficiently implemented a REST API to interact with a No-SQL MongoDB database.
- Utilized Vue.js with Vuetify to create a user-friendly and aesthetically pleasing interface.

### Pokémon Crossing

*Java, Python*

- Developed a re-skinned version of the open-world game Animal Crossing using Java's built-in graphical library.
- Wrote Python automation scripts to edit JPG and PNG files for game sprites and graphics.
- Showcased fluency of OOP by abstracting game data into classes and using inheritance for NPCs and items.

### Chronicle

*Node.js, React Native*

- Developed an Android application that instantly displays relevant information about books scanned by the user.
- Leveraged Google Vision and Goodreads APIs to display data to the user.
- Used core React concepts such as component state and life cycle for information modals and camera logic.

## EXPERIENCE

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### CodeReach

Windsor, ON

*Mentor*

2019 - 2020

- Volunteered 3 hours/week for over a year, helping young students learn Python programming in a class setting.
- Authored programming problems and solutions, allowing students to comprehensively understand content.

### Downtown Mission

Windsor, ON

*Kitchen Volunteer*

2019

- Efficiently communicated and collaborated with colleagues to provide hospitality for those in need.
- Engaged in community outreach, raising valuable funding for the organization.

### Canadian Young Physicist Tournament

Toronto, ON

*Competitor*

2020

- Extensively researched 10 open-ended physics problems describing everyday phenomena.
- Collected empirical data by conducting rigorous experiments, using Python and Excel for analysis.
- Used critical thinking and teamwork skills to develop a final thesis and presented to the panel of 10 judges.

## EDUCATION

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### University of Waterloo

Waterloo, ON

*Bachelor of Software Engineering, BSE (4.0 GPA, CAV 98.4%)*

*Expected 2025*

## AWARDS

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Hack3 First Place Prize; Vincent Massey Secondary School Mathematics and Physics Awards; Bronze Award for the Canadian Open Mathematics Challenge Southwestern Ontario Region

## INTERESTS

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Strategy games, competitive math, badminton, debate