

# Muxing (Nick) Liu

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## PROGRAMMING SKILLS

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

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

## PROJECTS

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### Subspace

*Node.js, Vue.js*

- Developed a virtualized collaboration system that allows colleagues to easily access the user's desktop.
- Combined Vue.js with Node.js to implement core features such as creating and displaying workspaces.
- Won Hack the North 2020 Finalist award.

### 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.

### Pokémon Crossing

*Java, Python*

- Developed a re-skinned version of the open-world game Animal Crossing using Java Swing.
- 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.

### Meeting Catalyst

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

- Developed a 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.

## EXPERIENCE

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### CodeReach

*Mentor*

Windsor, ON

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

*Kitchen Volunteer*

Windsor, ON

2019

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

## AWARDS

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**Hack the North 2020 Finalist** – Awarded for a top 24 submission out of 3000+ participants

**Hack3 First Place Prize** – Awarded for best overall submission out of 250 participants

**Canadian Young Physicists' Tournament Bronze Medal** – Awarded for placing top 50% of teams

**University of Windsor Science Olympics First Place Team** – First place out of 40 teams

## EDUCATION

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### University of Waterloo

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

Waterloo, ON

*Expected 2025*

## INTERESTS

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Strategy games, competitive math, badminton, debate