

# Yichen Cui

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## Skills

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### Programming Languages:

- **Proficient:** Python, Java
- **Competent:** C, C++, Bash, PowerShell

### Tools & Frameworks:

- Git, LaTeX, TensorFlow, JavaFX

### Others:

- Linux experience, Scrum experience

## Education

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### University of Toronto Mississauga Campus

Sep 2018 – Apr 2023

- Computer Science Specialist — GPA 3.42
- Relevant Courses:
  - CSC207: Software Design (OOP design patterns, Scrum software development)
  - CSC209: Software Tools and Systems Programming (Low-level programming)
  - CSC263: Data Structures and Analysis (Hashing, Heaps, Balanced BSTs, Stacks, Queues)

## Projects

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### Super Smash Family Melee — [git.io/Jf9ms](https://git.io/Jf9ms)

Aug 2018 – Present

- Two-player platform fighting game for Android, written in Java
- Integrated OOP design patterns such as Factory and Observer to simplify code
- Used Android bluetooth to connect and transfer data between two devices
- Implemented multithreading to manage bluetooth connections while processing gameplay

### osu!.db Manager — [git.io/Jf9ml](https://git.io/Jf9ml)

May 2020 – Jun 2020

- Lightweight tool to read and download game files, written in Python
- Parsed binary files to decode cached game data
- Decoded ULEB128 integers and UTF-8 strings from bytes
- Used game data to authenticate and download files from URLs

### Space Rocks — [git.io/Jf9m8](https://git.io/Jf9m8)

Dec 2019

- Multidirectional arcade shooter game for Windows, written in Java
- Collaborated with four classmates using Git and Github for version control
- Used the Model View Controller design pattern to organize code
- Displayed graphics and read keyboard input using JavaFX

## Experiences

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### Game Head – UTM Esports

Jan 2019 – Present

- Organized and promoted gaming tournaments on campus
- Wrote a PowerShell script to install game and data on campus computers
- Displayed and managed game information using Google spreadsheets