



Skills/Knowledge

- JavaScript Node, MongoDB, HTML/CSS **5 years**
- Python Flask, PyTorch, OpenCV **4 years**
- C# Unity, OculusVR, WPF **3 years**

Key Projects

Tuesday Night Tempo

- Developed a **Unity** rhythm game that can be played with an acoustic drumset
- Designed and wrote an algorithm to convert Drum MIDI files to in-game indicators
- Winner of Hack the North 2021

Samir's Pizza Delivery

- Developed a co-op multiplayer game with **Unity** where two players must collaborate to deliver pizzas
- Used Unity's **Relay** system for multiplayer to implement low latency network communication with lobbies
- Rendered the game environment with real-world building heightmap data using the **Mapbox API**

Garbage Wrangler

- Built a **Unity** game where the objective is to clean up garbage in an ocean ecosystem
- Implemented **procedural generation** with Perlin noise to create a unique environment
- Winner of Best Oceans Hack - Hack the Earth 2021

Wallpaper Wizard

- Independently developed a **C# WPF** desktop tool to change the user's wallpaper based on the weather and time of day
- Utilized common UX principles such as Hick's Law to create an effective user flow
- Over 1700 downloads on itch.io

Experience

Logistics Organizer - JAMHacks V

Fall 2020-Summer 2021

- Organized Waterloo's largest high school hackathon
- Contacted and professionally communicated with sponsors
- Collaborated with fellow organizers to set up the judging system

Tennis Instructor - Upper Beechwood II Pool

Summer 2019-Summer 2020

- Planned lessons covering numerous tennis skills for children aged 4-14
- Delivered constructive feedback to children and parents about each child's progress

Aquatic Assistant - Waterloo Recreation Centre

Fall 2018-Winter 2019

- Assisted swimming lessons for children aged 4-10
- Facilitated communication between parents and instructors
- Worked one-on-one to accommodate children with special needs

High School Volunteer - ESQ Summer Camp

Summer 2018

- Assisted children aged 8-12 with various software-related activities
- Instructed Scratch, Blender, and Unity to allow campers to create their own games

Education

- Candidate for Bachelor of Software Engineering, University of Waterloo, Waterloo, ON | 2021-2026