

James Nickoli

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Education

McMaster University
Computer Science Co-op
Bachelor of Applied Science

Hamilton, Ontario, Canada
2021 – 2025

Work Experience

City of London, Canada

London, Ontario, Canada

Roads and Transportation Crew Member

May 2023 – Sept 2023

- Improved teamwork skills working with a night shift crew to maintain road traffic markings while adhering to safety procedures around traffic and hazardous materials

Big Viking Games

London, Ontario, Canada

Co-op Software Developer

May 2022 – Aug 2022

- Increased the efficiency of internal game maintenance and moderation by updating old administrative tools and creating new ones for tedious tasks
- Improved quality of life for the thousands of daily active users by adding requested features to the in game social systems
- Strengthened player connection by discovering the cause of long-standing disconnect and loading issues

Family Karate Centres

London, Ontario, Canada

Karate Class Instructor

Jan 2017 – Aug 2020

- Developed communication skills and independence while working as an instructor running workouts and teaching martial arts to both adults and children in a variety of group sizes

Programming Experience

McMaster Competitive Programming Team

Team Member

Oct 2021 – Feb 2023

- Represented McMaster in the International Collegiate Programming Contest as a member of the junior team in 2021-2022, and placed 3rd in the 2022-2023 tryouts, qualifying as a member of the leading team.

First Robotics Competition

Team 5024 programming team member

Sep 2016 – Jun 2021

- Used Java to create readable and reliable code for a 120-pound robot while debugging software, firmware, and hardware within a 6 week development time frame
- Used GitHub, and Trello to collaborate with the programming team, and Slack to communicate with the broader team
- Designed and implemented subsystem control code that played a large role in the team receiving the Innovation in Control Award at the 2019 Ryerson University Event by using a limited set of sensors to achieve the requested functionality

Projects

Missile Command Remake

<https://github.com/rsninja722/UbisoftNext2024>

C++

- Participated in Ubisoft's NEXT competition, using the provided API to create a 3D game engine, managing memory with an Entity Component System.
- Recreated the arcade game Missile Command with 3D graphics, and physics-based missiles

C++ Platformer

<https://github.com/rsninja722/CabushsKookyClimb>

C++, WebAssembly

- Created a platformer game with C++ using the Raylib game library for the Ludem Dare 51 game jam in 72 hours
- Compiled the game to run on the web and on the desktop with WebAssembly using the Emscripten toolchain

Java Game Engine

<https://github.com/rsninja722/gamej>

Java, Swing, AWT

- Built a Java package for making GUI programs. It handles creating a game loop with multiple threads, using the GPU for graphics, asset loading, camera systems, mouse and keyboard input, and has custom documentation with project templates

Personal Site

<https://rsninja.dev>

HTML, CSS, Javascript

- Maintaining a personal site to showcase my past games and coding projects

Skills

Languages: Javascript, HTML/CSS, Python, Java, PHP, C/C++, C#, Haskell, SQL

Frameworks / Technologies: React, Node.js, Raylib, MariaDB, MongoDB, WebAssembly, Docker, Firebase

Tools: Git, GitHub, Linux, Jira/Confluence, Slack