

# CONNOR USATY

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## Education

### McMaster University

Sep. 2021 - Apr. 2026

Bachelor of Engineering, Computer Engineering (Co-op)

Hamilton, Ontario

GPA: 3.64/4.00

**Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Software Development, Linear Algebra, Multi-Variable Calculus, Advanced Probability & Statistics, Circuit Design & Analysis, Logic Design

## Extracurricular & Awards

### McMaster Artificial Intelligence Society

Sep. 2023 - Present

Director of Education

McMaster University

- Ran the Education Team of the McMaster Artificial Intelligence Society.
- Developed and presented AI/ML workshops for MacAI members and the McMaster community.

### Deans' Honour List

2021 - 2022 & 2022 - 2023

Award Recipient

McMaster University

- Awarded to students with a GPA of 9.5 or higher on McMaster's 12-point scale.

## Projects

### Pathfinding Algorithm Visualizer (React.JS, JavaScript, HTML, CSS) | [Website](#) | [GitHub](#)

- Created an interactive visualization tool for common pathfinding algorithms using the React.JS framework.
- Increased user engagement through adjustable animation speeds, and real-time maze generation algorithms.
- Implemented A\* Search, Dijkstra's, Breadth-First Search, and Depth-First Search pathfinding algorithms.
- Features three different heuristic's for A\* Search, and a full instructions menu with visual examples.

### YouTube to MP3 Converter (Node.JS, Express.JS, JavaScript, HTML, CSS) | [Video Demo](#) | [GitHub](#)

- Developed a server-side application using Node.JS and Express.JS to handle HTTP requests and responses.
- Implemented error handling mechanisms that displayed appropriate error messages to the user interface.
- Utilized a RESTful API to make GET requests to a third-party API endpoint for data retrieval.

### Sudoku Game and Solver (Python) | [Video Demo](#) | [GitHub](#)

- Developed a Sudoku game with an interactive GUI in Python using the PyGame library.
- Implemented a solver which utilizes a recursive backtracking algorithm to find a solution to any solvable game.
- Utilized good object-oriented programming principles to develop classes for the board and the individual squares.

## Work Experience

### Edge Group

May 2022 - Aug. 2022

Assistant Project Coordinator

Vaughan, Ontario

- Oversaw multiple job sites across Ontario while being the sole on-site company representative.
- Collaborated closely with Project Managers as a key member of the Project Management Team.
- Contributed to the development and implementation of project plans while adhering to tight deadlines.
- Developed and maintained official start-up and closing documentation for job sites, ensuring compliance with regulations.

### Goldfish Swim School

Sep. 2019 - Mar. 2020

Lifeguard & Swim Instructor

Oakville, Ontario

- Supervised and coached the school's competitive swim team, Swim Force.
- Maintained a safe swimming environment while monitoring 50+ swimmers and quickly responding to any emergencies.
- Designed and implemented customized swim lesson curriculum's that resulted in a 98% pass rate for my students.

## Skills

**Proficient:** C++, C, Python, JavaScript, React.JS, HTML/CSS

**Familiar:** MATLAB, Simulink, Node.JS, Express.JS, Git, GitHub