Ethan Walsh

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EDUCATION

McMaster University Hamilton, ON

B. Eng in Software Engineering with Co-op - GPA 4.0 *Apr. 2026*

- Awards: Anna Marie Hibbard scholarship (Highest first year average), McMaster Provost's Medal
- Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, Software Design I
- Extracurriculars: McMaster Artificial Intelligence Society

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, TypeScript, HTML, CSS, MATLAB
Frameworks\Libraries: React.js, Node.js, Next.js, MongoDB, TailwindCSS, FastAPI, OpenCV
Tools: Unix, Docker, Firebase, Figma, Git/GitHub, Latex

EXPERIENCE

Project Lead Oct. 2023 - Present

McMaster Artificial Intelligence Society *Hamilton, ON*

- Served as a project lead for a team of six within the McMaster Artificial Intelligence Society in the creation of a piano learning tool meant to bridge the gap between current digital solutions/apps and in-person lessons.
- Coordinated team meetings, work designations, and timelines, as well as taking on support roles to ensure success.
- Authored a project research paper and design documentation to be demonstrated at Canada's undergraduate artificial intelligence conference, CUCAI.

Software Engineering Intern May 2023 - Aug 2023

Fermi Solutions *Port Elgin, ON*

- Reduced storage application timeline by 50% by developing a web application for digital management of temporary storage in large-scale nuclear facilities (roughly 500 users).
- Engineered a custom API to serve information regarding storage areas, providing key insights to a power plant undergoing major refurbishments.
- Created intranet system to act as a central hub for tracking engineering project progress and delivering company news and events, as well as storing reports and procedures.

Program Developer Feb. 2022 - Jun. 2022

Nuclear Innovation Institute *Port Elgin, ON*

- Spearheaded the creation of an online Python learning platform using to be used by roughly 4000 high school students in the Bluewater District School Board.
- Produced coding challenges to increase student engagement, to be used by teachers with no code knowledge.
- Implemented the division of the Nuclear Innovation Institute website to house the program using HTML and Wix.

PROJECTS

pianAI | *Python, OpenCV, MediaPipe, Streamlit*

- Leveraged OpenCV and artificial intelligence to provide feedback to users on hand positioning and musical technique.
- Interpreted incoming MIDI and audio signals to provide correctness statistics and data on musical notes played.

Praxi | *Python, Django, TailwindCSS, HTML*

- Developed a language learning application to improve comprehension by hosting live chat rooms for different languages, allowing users to talk in real-time with fluent speakers.
- Incorporated artificial intelligence via the ChatGPT API to allow for users to practice and train.

Personal Portfolio | *ReactJS, TailwindCSS, TypeScript, GSAP*

- Designed a custom portfolio site to demonstrate and display projects, experience, and web development skills.
- Themed the website after the New York City Subway system by employing TailwindCSS and GSAP animations.