

Harsh Upadhyay

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EDUCATION

McMaster University – Computer Science

Hamilton, ON

Candidate for Bachelors of Honors Computer Science (co-op)

Expected Graduation 2026

- **Awards:** Presidents entrance scholarship valued at \$5000 for incoming students with above an 95% average in high school

PROFESSIONAL EXPERIENCE

Sciencious UAE

Remote

Tutor

February 2022 – June 2022

- Tutor at Sciencious UAE, a youth-focused initiative dedicated to sparking enthusiasm for STEM education.
- Contributed to the educational advancement of underserved communities by providing free, high-quality tutoring, helping students build confidence and achieve academic success.
- Tutored in subjects such as math, science, and English, delivering personalized educational assistance and fostering academic growth.

Comet

Remote

Computer programmer

February 2022 – May 2022

- Conducted in-depth UI/UX analyses during software testing, meticulously documenting bugs, results, and concerns, facilitating iterative enhancements.
- Engaged in structured user testing sessions as per Head Developer's directives, providing critical feedback to augment product development and refine iterative cycles.
- Collaborated cross-departmentally with engineers, devising robust test plans and strategic approaches for effective product development.

Inspire Your Future

Remote

Social Media Content Manager

December 2021 – February 2022

- Manager for Inspire Your Future, a small non-profit startup dedicated to inspiring students through engaging and interactive online talks.
- Led a team of 3 professionals dedicated to social media-driven outreach and the development of innovative marketing approaches, resulting in significant improvements in engagement and support.
- Crafted tailored content and effectively promoted the organization's mission, leading to a notable increase in online engagement, with an average of over 3,000 views per post.

PERSONAL PROJECTS

[Personal Portfolio Website](#) | *HTML, CSS, Javascript, NextJS, Swiper API, EmailJS*

Dec 2023

- Developed a personalized portfolio website using **NEXT.js**, showcasing expertise, projects, and accomplishments.
- Designed an engaging and responsive UI with **HTML**, **Tailwind CSS**, and **Framer Motion** for enhanced user experience.
- Implemented **JavaScript** for interactive features and dynamic content, boosting user engagement.
- Integrated **EmailJS** for seamless communication and efficient handling of inquiries.
- Employed industry-standard best practices to **optimize performance** and ensure **cross-browser compatibility**.

[EchoSphere](#) | *Python, speech_recognition, BeautifulSoup*

Nov. 2023

- Developed EchoSphere, a **Python**-based desktop assistant leveraging voice recognition using the **speech_recognition** module and **multiple APIs** for automation, web search, system control, and utility functions, providing an interactive user experience.
- Implemented features including voice-controlled automation for YouTube, applications, and Whatsapp, along with information retrieval from web sources like Google, YouTube, and Wikipedia, demonstrating proficiency in **Python**, API integration, and task automation.

[Active Track](#) | *Python, Jupyter Notebook*

Dec. 2023

- Developed **Python** scripts for robust data handling, visualization, and machine learning model creation using accelerometer and gyroscope data, enabling precise classification of barbell exercises, and counting repetition.
- Utilized outlier detection techniques like **Chauvenet's Criterion**, advanced feature engineering, and predictive modeling with hyperparameter tuning, achieving a **high classification accuracy of 98.9**.
- Engineered **LowPassFilter**-based repetition counting function, optimizing settings for accurate repetition identification, showcasing technical proficiency in signal processing and algorithm development for fitness data analysis.

TECHNICAL SKILLS

- **Programming:** C/C++, Python, Java, JavaScript, Haskell, Elm, HTML5, CSS3, SQL, MATLAB
- **Frameworks:** React.js, Node.js, Express.js, Tailwind CSS, Email.js, Django, Flask, Matplotlib, DeepFace, Pillow, OpenAI API
- **Developer Tools:** (IDE) VsCode, Replit, Eclipse (Version Control) GitHub, Git (Testing) JUnit, Pytest (Cloud) Amazon Web Service