Harsh Upadhyay

437-986-2285 | upadhh1@mcmaster.ca | LinkedIn | GitHub | Academic Portfolio

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 | *Javascript, NextJS, HTML, CSS, 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