Ankush Sarkar

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Technical Skills

Languages: Typescript, JavaScript, Python, Go, SQL, php, C, HTML/CSS, Java, R, Haskell
Frameworks/Technologies: Vue, Nuxt JS, React, Next JS, Node, Flask, Three JS, TailwindCSS, OpenGL
Tools: Linux, Git, BaaS providers (Supabase, firebase), Sanity (Headless CMS)

Work Experience

Research Assistant — January 2023 – Present
McMaster University — *Hamilton, ON*
- Worked on algorithms for autonomous navigation of RC cars on predefined tracks, managing intersections and vehicle-to-vehicle communication.
- Utilized **Python** and **OpenCV** to process real-time sensor data, implementing solutions on **Raspberry Pi** devices.

Projects

Family Tree Visualizer (*App* | *Code*)
- Built a full-stack application that enables users to create, store, and visualize family trees with ease.
- Utilized technologies such as **Nuxt.js**, **Supabase**, **d3-org-chart**, and **Tailwind CSS** to deliver an amazing user experience.

Audio Visualizer (*App* | *Code*)
- Implemented a captivating 3D audio visualizer that dynamically adjusts the dimensions of a 3D sphere based on the amplitude of the playing song.
- Employed technologies including **Three.js**, **Nuxt.js**, and **Tailwind CSS** to create an immersive and interactive audio experience.

Multiplayer Tic Tac Toe (*App* | *Code*)
- Engineered an engaging online multiplayer Tic Tac Toe game, allowing users to compete with friends and others in real-time.
- Implemented the project using **Vue.js** and **Flask-SocketIO**, ensuring smooth and responsive gameplay.

Club Experience

Web Developer — January 2023 – Present
Computer Science Society McMaster University — *Hamilton, ON*
- Successfully built and currently maintain the Computer Science Society website, providing an online hub for information and resources, resulting in a **80% increase in website traffic**.
- Utilized cutting-edge technologies such as **Astro**, **React**, and **Tailwind CSS** for a responsive and visually appealing website.
- Collaborated with a development team to implement new features, fostering innovation and teamwork.

Web Developer — September 2023 – Present
McMaster University Music Production Society — *Hamilton, ON*
- Led the initiation and continuous maintenance of the McMaster University Music Production Society website, overseeing its entire development life cycle.
- Demonstrated proficiency in leveraging technologies, including **Nuxt.js**, **Tailwind CSS**, and **Sanity**.

Education

McMaster University — Hamilton, ON
B.A.Sc. Computer Science CO-OP — *2021 - 2025*
Deans Honours List - Present
Relevant Courses
    COMPSCI 3SH3 *Operating Systems* **(A+)**
    COMPSCI 2C03 *Data Stuctures and Algorithms* **(A+)**
    COMPSCI 2DB3 *Databases* **(A+)**

Other Achievements

- Won the **MedX Challenge** at **DeltahacksHacks X** for developing, **tAIket**, an AI powered ticket management system.
- Won an award at **DeltahacksHacks IX** for **Most Innovative Use of the Verbwire API**, for our project, **DiGiDegree**, a website prototype for authenticating online course certifications using block-chain technology.