Bhavya Shah

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CORE SKILLS

• C/C++/C#	• Autodesk Inventor	• Machine Learning	• Leadership
• Python	• ReactJS/NodeJS	• STM32/Arm Cortex M4	• Communication
• Git	• HTML/CSS	• UI/UX Design	• Teamwork

WORK EXPERIENCE

Senior Camp Counsellor – The Steam Project   **Jun 2023 – Aug 2023**
- Guided campers through the completion of over **100**+ STEAM-related projects, such as hydraulic judo robots
- Spearheaded 3D printing workshops daily using **TinkerCad** to introduce **CAD Design** to over **90** campers
- Taught **SCRATCH** programming on **micro:bits** to recreate **5** games, including "Bop It" & "Rock Paper Scissors"

Software Developer Intern – Ageis Technologies   **Jun 2022 – Aug 2022**
- Collaborated with cross-functional teams to analyze requirements and draft **25**+ user stories using **Jira**
- Developed a test-taking platform for Sunlife Financial in 2 months by following the **Agile** framework
- Leveraged **HTML, CSS, and JavaScript** for the website's design, integrated multilingual support for **35** languages

EDUCATION

McMaster University - Bachelor of Engineering, Mechatronics   **Sep 2021 – Apr 2025**
- GPA: **3.9** | Relevant Courses: Programming for Mechatronics in **C**, Embedded Systems, Data Structures in **C++**

PROJECTS

Automated Recycling System   **Jan 2022 – Mar 2022**
Programming Lead   Python | Raspberry Pi | Automation
- Developed a **Python** program on a **Raspberry Pi** that utilizes sensors to identify the recyclability of materials
- Employed a robotic arm to transport the scanned items to their respective bins; Reduced errors in sorting by **92%**

Sterilization Tool Container   **Oct 2021 – Jan 2022**
Modelling Lead   Autodesk Inventor | PrussaSlicer | 3D Printing
- Modelled a container prototype in **Autodesk Inventor** to optimize the sterilization of **3** commonly used medical tools
- Conducted the 3D printing of the container through **PrussaSlicer**; new design reduced risk of infection by **99.9%**

EXTRACURRICULARS

McMaster MacHacks 3 – AI Health Hack   **Feb 2023**
Machine Learning Lead   TensorFlow | Keras | HTML | CSS | JS
- Deployed a web app **Food Genie** that uses ingredient submission to provide a minimum of 4 healthy recipes
- Integrated **machine learning** detection model using **TensorFlow** to classify **1000**+ food items
- Trained model to detect new objects by creating a custom dataset, resulting in a **96%** detection accuracy

McMaster DeltaHacks IX – 1st Place   **Jan 2023**
Web Development Head   ReactJS | Figma | NodeJS | Tailwind
- Programmed a gamified web app **CodeWarriors** using **ReactJS**, providing a global platform to learn coding
- Constructed **Figma** wireframe to mockup initial UI, and used **CSS** and **Tailwind** to implement the design
- Placed **1**st from **431** competitors in this hackathon for change with over **$12,225** in prizes

Mac Formula Electric   **Sep 2021– Jan 2023**
Embedded Systems Engineer   TouchGFX | STM32 | Embedded C
- Performed extensive **CAN** testing through the **STM32Cube** IDE for the STM32F7508 MCU
- Reconstructed **UI/UX** in **TouchGFX** for the dashboard featuring an animated boot screen & metrics display
- Ranked **31**st out of **276** teams (Top 15th Percentile) in the EV sector of the SAE Michigan 2022 Competition