# Yash A. Bhavsar

8 Hefferon Crt. Brampton, ON L6Y5J3 | 647-774-3765| bhavsary@mcmaster.ca
https://www.linkedin.com/in/yash-bhavsar-75a0081b8/ | https://yashexe.github.io/Yash-Bhavsar-s-Portfolio/

## Education

**McMaster University | Hamilton, ON** *September 2020 – Present*
B.Eng. in Electrical Engineering, GPA 3.4 Expected Graduation, May 2024

## Skills

**Programming:** C++, C, Python, JavaScript, HTML, CSS, Verilog, MATLAB
**Platforms:** VSCode, Eclipse IDE, Github, Jupyter Notebook
**Hardware:** Raspberry Pi, Analog Discovery 2, TI MSP432E401Y microcontroller
**Software:** Microsoft Office, Altera Quartus II, Keil uVision 5, LTspice, Waveforms, Realterm

## Experience

**Grey-Bruce Telecoms | Owen Sound, ON** *July – September 2022*
***Technical Representative***

- Identified and solved variety of client issues involving hardware (router, PoE, CPE, towers) and cable misuse/faultiness
- Initialized wireless and fibre connections on administrative side by accessing IP addresses and connecting to local towers
- Utilized geographical data to test feasibility of secure wi-fi connections to remote locations/properties and relayed information to clients.
- Managed all client's banking information, past invoices, and future payments/account changes

**TJX Canada | Brampton, ON** *May – July 2022*
***Data Entry Clerk***

- Created, organized, and transferred information from paper documents onto database systems
- Routinely created excel-based reports quantifying production and quality of barcodes

## Projects

**Calculator Application** *December 2022*
***Individual, Personal Project***

- Created a react-based calculator app using HTML, CSS, and JavaScript
- Implemented various math functions using the mathjs library and utilized state management with the useState hook

**Lidar-Based 3D Hallway Mapper** *March – April 2022*
***Individual, Microprocessor Project Course***

- Created a C program in Keil that activated and rotated a LiDAR sensor to capture segments of a hallway
- Used Python and I2C/UART protocols to process and visualize the data from the LiDAR sensor, creating a 3D map
- Developed circuitry and user controls for starting/stopping the program and providing feedback

**Automated System for Sterilizing Surgical Tools** *Winter 2021*
***Coordinator, Integrated Engineering Projects Course***

- Applied Python using a Raspberry Pi to design and develop a program that can move and manipulate the features of a robotic arm in Quanser Interactive environment
- Planned weekly meetings with the group and presented developments to the rest of the class

## Activities

**McMaster University | Hamilton, ON** *Fall 2022– Present*
***Maction Club Member, Software Team***

- Applied the Python tkinter library to create a GUI capable of tracking nicotine levels sent through an Arduino
- Executed C code compiled into an Arduino to control an injection needle at varying intervals

## Relevant Coursework

**Circuit Testing:** Design of complex circuits through breadboards and LTspice; Analysis done through Waveforms, utilizing oscilloscope, and manipulating input voltage waveforms

**Microcontroller Testing:** Execution of C code created and pushed from PC; data sent to Realterm for visualization and debugging purposes through I2C protocols