

Manush Patel

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EDUCATION

McMaster University

Hamilton, ON

B.Eng in Computer Engineering

September 2024 - Present

- Recipient of the **Engineering Award of Excellence**, awarded for outstanding academic performance within the **top 10%** of the engineering faculty

EXPERIENCE

Firmware Developer

Hamilton, ON

Formula Electric

September 2024 - Present

- Designed a Python module with **Pytest** to analyze **CAN bus traffic**, improving efficiency and debugging time
- Refactored vehicle firmware by transitioning from Simulink models to C++, improving compilation time by **20%**
- Gained proficiency in **Git/GitHub** and **Markdown** to document development work, contributing to the team's [website](#).

Commission Sales Associate

Brampton, ON

Tiptop Tailors

June 2022 - June 2024

- Increased **customer satisfaction by 20%** and **repeat business by 10%** by providing personalized assistance and attention to detail.
- Measured clients for tailored suits and guided them in selecting outfits for weddings and special events, ensuring the perfect fit.

EXTRACURRICULAR INVOLVEMENT

AngelHacks Winner | *Raspberry Pi, Python*

- Achieved **1st place** and won **\$500** in funding to organize school's **first hackathon**, providing students with a platform to explore tech innovation.
- Programmed a series of interactive minigames on a **Raspberry Pi Pico**, demonstrating skills in hardware and game design.

Hackathon Organizer | *Event Planning, Leadership*

- Organized and led the **first-ever hackathon** in the school district, managing recruitment, logistics, and fundraising.
- Attracted over **200+ participants**, collaborating with other clubs for advertising, resulting in a **10% increase** in tech club enrollment.

PROJECTS

NavAid: Tactile Braille Navigation System | *Raspberry Pi, Python, OpenCV, AI, OCR*

- Developed an **AI-powered navigation aid** for blind/deaf users, extracting key street sign data in **real-time**
- Used **OpenCV** and **EasyOCR** to process live camera input, ensuring fast and accurate text recognition.
- Designed a **Raspberry Pi-powered tactile braille system** for real-time street sign conversion.

Personal Portfolio Website | *React, HTML, CSS, JavaScript*

- Designed and developed a **responsive portfolio website** to showcase **projects, experience, and skills**.
- Integrated a project gallery and contact form to enhance user engagement.
- **Hosted and maintained** the site at manushpatell.github.io/manush-portfolio.

TECHNICAL SKILLS

Languages | C/C++, Java, Python, LaTeX, Swift

Developer Tools | Git, VS Code, Visual Studio, PyCharm, Jupyter Notebook

Libraries | Numpy, Matplotlib, Yfinance