# **Caylia Bonnick**

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https://github.com/cayliab03

## HIGHLIGHTS OF QUALIFICATIONS

- Enrolled in level 3 of the 4-year Electrical Engineering co-op program at McMaster University
- Excellent teamwork & communication skills gained through various extracurricular involvements
- Experience with analog and digital circuitry and logical systems, both analog and digital, gained through course and lab work
- Strong problem solving and analytical skills developed while working as a Manufacturing Process **Engineering Co-op student**

#### **EDUCATION**

## **Bachelor of Engineering, Electrical Engineering Co-op**

09/2021 - 04/2026

McMaster University, Hamilton

· Pursuing a minor in Music

## **EXPERIENCE**

## **Manufacturing Process Engineer**

05/2024 - 12/2024

Procter & Gamble, Belleville

- · Lead investigation into root cause of top consumer complaint by testing hypotheses, recommending, and implementing a solution
- Spearheaded the digitization of product dimension and bag size data collection, enhancing product consistency and consumer experience
- Built multi-linear regression models to forecast product attributes, enabling proactive quality control
- Supported logistical process automation by collaborating with project leads, leveraging strong communication and problem-solving skills to define and overcome challenges

**Private Tutor** 03/2023 - 12/2024

Tutorax, Remote

- Taught a wide range of subjects to students from grades 1 to 12 in both English and French
- Explained key concepts, helped students through class assignments, and worked with parents to design individualized lesson plans

#### Joe Fresh Sales Associate

10/2019 - 04/2024

Real Canadian Superstore, Whitby

- Ensured all customers received excellent service through courteous salesmanship, and prompt service, maintaining a 100% positive customer and employer feedback score
- Assigned to "Ship from Store" service based on efficiency and ability to thrive under pressure, allowing the oppurtunity to futher develop strong time management skills
- Managed sales, shipments, and returns through a POS software system

## **PROJECTS**

## Microprocessor Systems Project ∅

04/2024

Associated with McMaster University

- Built a device that scans its surroundings and uses serial communication to create a 3D rendering of an enclosed space
- Used a ToF Sensor, a Microcontroller, and a PC to collect, send, receive, interpret, and visualize measurement data
- Wrote C++ and Assembly code to receive and transmit data to the PC and a Python code to store received data, using Open3D for data visualization

Personal Website *⊘* 05/2023

- Created a static website hosted on GitHub Pages with files written in HTML, CSS, and JavaScript
- Showcases my experiences, projects, and achievements
- Uses Google Sheets to receive contact from clients

Bend Your FootPrint 

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02/2023

Elle Hacks

- Developed a website with an embedded Python-coded quiz with a team in 36 hours
- Utilized Hubspot CRM, HTML, and JavaScript to make the website interactive and styled using CSS to implement easy navigation for users

Sorting Robot *∂* 04/2022

Associated with McMaster University

- Used Python to program a recycling robot to sort, transport, and deposit containers made of different materials to their corresponding recycling bins in the Quanser Interactive Labs interface
- Used a colour sensor to ensure each container was properly identified and deposited into the correct hin
- Used an infrared sensor to have the robot follow a leading line around the track

## **EXTRACURRICULAR ACTIVITIES**

#### **Logistics and Marketing Team Member**

09/2023 - Present

McMaster Deep Space Analogue Research Expedition (DARE)

- Organizing engineering research expeditions to areas simulating conditions of a chosen planetary location in deep space
- Performing extensive research to ensure optimal expedition results
- Finding sponsorship as well as managing lodging and travel requirements

#### **CREST Conference Operations Executive Director**

11/2022 - 10/2024

McMaster Women in Science and Engineering (WISE)

- Spearheaded the "Current Research in Engineering, Science, and Technology" annual regional conference
- Along with a team, organized keynote address, panels, workshops, and research presentations
- Facilitated interdisciplinary networking for students, postdocs, and faculty

WiE Ambassador 02/2023

McMaster Women in Engineering (WiE)

• Provided information to upper year high school students about McMaster, the Faculty of Engineering and the ECE program

## **TECHNICAL SKILLS**

#### **Programming Languages**

Python, C/C++, CSS, JavaScript, HTML, MATLAB, R, Verilog, VHDL, Assembly

#### **Tools**

 Microsoft Office GitHub, Hubspot, Visual Studio Code, Eclipse IDE, R Studio, Analog Discovery 2, Autodesk Inventor, Raspberry Pi, ORCAD PSpice, Quartus II, Keil

#### **Equipment Expertise**

 Breadboard, Oscilloscopes, Digital Multimeters, Signal Generators, Function Generators, Soldering and Wiring circuits, Voltage and Current Probes, Integrated Circuits

## **Spoken Languages**

· Fluency in English and French