Bob Built

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Highlight of Qualifications

- Enrolled in level 3 of McMaster University's Mechanical Engineering Co-op Program, **eligible for full-time 4-, 8-, 12- and 16-month co-op placement** starting May 2027
- Strong ability working with production lines and process engineering through past internships
- Proven experience in human factors and ergonomics engineering in car design team
- Demonstrated communication and teamwork skills from technical project work

Education

Bachelor of Engineering Co-op (BEng) | *Mechanical Engineering*   **2024 – 2029**

McMaster University

Work Experience

Process Engineer Intern | *XYZ Automotive Manufacturing Co. Pickering ON*   **May - Aug 2026**

- Optimized automotive part production processes resulting in a 15% increase in efficiency and 10% reduction in waste
- Implemented quality control measures that improved product consistency by 20%
- Conducted time-motion studies to identify bottlenecks, reducing cycle time by 12%
- Collaborated with cross-functional teams to develop and test new manufacturing techniques, demonstrating adaptability and teamwork skills
- Utilized data analysis tools such as R to monitor and improve process performance

Industrial Engineering Co-op | *Seagull Automotive Inc., Brampton ON*   **May - Aug 2025**

- Implemented Scroll processes across six production areas (Trim, Chassis, Final Car, Door Build, Engine Build, Internal Logistics), improving workstation efficiency by 15% and reducing operator density by 10%
- Optimized assembly line layouts using AutoCAD, Siemens Tecnomatix, and Visio, enhancing space utilization by 20% and supporting the integration of advanced manufacturing technologies

Store Associate (Part-time) | *Best Buy Hillcrest Mall, Richmond Hill ON*   **Sept 2023 – Aug 2024**

- Created a positive shopping experience for customers by kindly assisting in any inquiries or directions, highlighting communication ability in fast-paced settings
- Worked closely with coworkers to maintain flow and efficiency, demonstrating teamwork and organizational skills
- Resolved customer complaints and difficult situations, showing professionalism and problem-solving ability in real-time situations

Projects

Numerical Methods Project | *Modelling Course Final Project*   **Mar – Apr 2027**
- Developed a MATLAB-based solver to simulate transient heat conduction in a 2D plate, improving computational efficiency by 40% through optimized matrix operations
- Modeled physical systems using finite difference methods and validated results against analytical benchmarks with less than 5% error
- Collaborated in a 4-person team to deliver a technical report and presentation, demonstrating project management, communication, organizational and teamwork skills

Toy Car Project | *Engineering Design Course Final Group Project*   **Nov – Dec 2025**
- Designed a car mechanism using SolidWorks and ANSYS FEA in a 3-person team to prototype, test, and iterate, demonstrating teamwork and communication skills
- Improved structural efficiency by 25% through iterative CAD refinement and material selection, enabling the robot to tow loads exceeding 3× its own weight
- Produced detailed technical drawings and assemblies for laser cutting and 3D printing, ensuring precise fabrication within budget and tolerance limits
- Integrated kit-supplied DC motors, limit switches, and AA battery power system into the mechanical design, highlighting critical-thinking and problem-solving skills

Extracurricular Activities

Engineering Welcome Week Representative | *McMaster University*   **Sept 2025 - Present**
- Represented McMaster Engineering throughout welcome week activities and initiatives, highlighting communication skills among first year students
- Collaborated with 50+ representatives to plan and execute multi-day events, showing strong project management and teamwork skills in fast-paced settings
- Facilitated live events for 900+ new students to foster strong community within the student body, demonstrating event management and organizational skills

Skills

Software: AutoCAD, Autodesk Inventor, ANSYS, SolidWorks, Tecnomatix, Python, Matlibplot, NumPy, Pandas, SQL, R, MATLAB, Simulink, Visio, Excel, Aspen Plus, MS Office, GSuite

Lab Skills: 3D printing, Machining (Lathe, Mill, waterjet), laser cutting, tensile test

Professional Certifications:

Standard First Aid with CPR-C - *YMCA of Greater Toronto*   *Jun 2026*

WHMIS Training Certificate (Online) - *Canadian Safety Training Centre*   *Sept 2025*