

Sam Bahrami

4th Year Mechanical Engineering
Student at the University of
Toronto

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EDUCATION

UNIVERSITY OF TORONTO
B.A.Sc. Mechanical Engineering
(Expected graduation Apr 2026)

ADDITIONAL SKILLS

Design & Analysis: SOLIDWORKS, AutoCAD, Ansys, Fusion 360, KISSsoft

Automation & Programming: PLC (Omron Sysmac Studio, CX-One), HMI Integration, API Automation, Python, C#, C++, MATLAB, Java

Manufacturing: TIG/MIG Welding, Lathe, Mill, Drill Press, Composite Fabrication

Quality & Validation: CPK Studies, PFMEA, Control Plans, Gauge R&R, Strain Testing

CERTIFICATIONS

GD&T Fundamentals

SOLIDWORKS Professional in Mechanical Design ([CSWP](#))

George Brown Machining

EXPERIENCE

Magna Electronics

Process Engineering Intern May 2024 – Aug 2025

- Supported daily production and led improvement projects across multiple radar module assembly lines.
- Developed and implemented automation tools, including dispatch systems, to reduce downtime and operator workload.
- Retrofitted and validated production equipment, enabling new product variants and increasing PCBA routing capacity.
- Coordinated with cross-functional teams and vendors to deliver cost-effective solutions under tight timelines.
- Completed over 20 continuous improvement initiatives, focusing on traceability, reliability, and operator efficiency.
- Gained extensive experience in PLC programming, equipment validation, and integration of mechanical and software systems.

UNIVERSITY OF TORONTO FORMULA SAE RACING (UTFR)

Shop Manager - Vehicle Engineer Sep 2022 – Present

- Served as a liaison between the team and University Faculty, ensuring strict compliance with various policies and WHMIS safety requirements. Additionally, organized and conducted safety training for new team members, contributing to a safer and well-prepared work environment.
- Utilized Ansys Mechanical FEA to design a range of sprockets, achieving a 35% reduction in mass and a substantial reduction in inertia, significantly enhancing the car's overall performance.
- Designed and assembled a cooling system for both motor and inverter system of the car, ensuring optimal temperature regulation and system efficiency.
- Specialized in vehicle engineering with a primary focus on designing and manufacturing drivetrain, steering, brakes, and chassis components tailored for electric formula-style racing cars, contributing to notable successes in Formula SAE and Formula Student competitions in New Hampshire, Michigan, and the Czech Republic.

Inteplast Bags and Films Corporation

Mechanical Engineering Intern May 2023 – Oct 2023

- Implemented a quality management system to produce numerous plastic bags and films, developing a series of Standard Operating Procedures (SOPs) that significantly improved the efficiency of the preventative maintenance team.
- Gained extensive hands-on experience in the operation and troubleshooting of industrial machinery, resulting in a 10% reduction in manufacturing downtime.
- Collaborated closely with Quality Assurance and Regulatory Affairs departments, ensuring strict adherence to governmental regulations and international standards. This diligent commitment facilitated the international exportation of products, expanding the company's market reach.

CANADA'S WONDERLAND

Fiberglass Technician May 2022 – Sep 2022

- Accumulated hands-on expertise in the precision manufacturing of composite parts for safety-critical components.
- Personally conducted meticulous quality control assessments on dies, templates, and cutouts, guaranteeing strict compliance with governmental standards.
- Diligently performed daily preventative maintenance inspections on waterslide equipment, ensuring its seamless operation while promptly addressing any issues that arose, thereby maintaining optimal performance.

PROJECTS

You can see my projects on my website [sam-bahrami.com](#)

