

## OBJECTIVE

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As an ambitious engineering student, I am enthusiastic about translating my academic insights into real-world applications. My goal is to actively learn, contribute, and acquire hands-on experience in a dynamic professional environment.

## EDUCATION

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<b>Toronto, Canada</b>	<b>University of Toronto</b>	<b>Spring 2025 (Expected)</b>
<ul style="list-style-type: none"><li>• <b>Major:</b> Mechanical Engineering, B.A.Sc. (GPA: 3.43)</li><li>• <b>Minors &amp; Certificates:</b> Artificial Intelligence, Robotics &amp; Mechatronics, Business</li><li>• <b>Relevant Courses:</b> Mechanical Design, Solid &amp; Fluid Mechanics, Manufacturing, Numerical Methods</li></ul>		

## SKILLS

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- **Software:** (*proficient*) SolidWorks (CSWA), Python, MATLAB (*familiar*): C++, Perl, SQL, JavaScript, HTML/CSS
- **Interpersonal:** Communication, Process Improvement (LEAN Six Sigma), Adaptability, Teamwork

## EMPLOYMENT

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<b>ASIC Design &amp; Verification, Intern</b>	<b>Advanced Micro Devices (AMD)</b>	<b>Summer 2023 – Spring 2024</b>
<ul style="list-style-type: none"><li>• Built test bench components such as libraries and models by applying objected oriented programming techniques while using advanced verification languages such as SystemVerilog and UVM</li><li>• Developed scripts using Python and Perl which identified and resolved critical issues within a code line before being submitted to the Jenkins Submission Server</li><li>• <u>Leveraged knowledge</u> in Python, Perl, SystemVerilog and UVM</li></ul>		

<b>Automation Technician, Intern</b>	<b>Kromet International</b>	<b>Summer 2023</b>
<ul style="list-style-type: none"><li>• Automated a new palletizing routine on the Yaskawa DX200 industrial robot controller allowing for an increase in efficiency of 27%</li><li>• Designed a new gauge system on SolidWorks and nanoCAD that managed to check for cuts and extrusions of various parts allowing for better inspection of parts</li><li>• <u>Leveraged knowledge</u> in SolidWorks, nanoCAD, basic scripting, manufacturing</li></ul>		

## PROJECTS

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### Concrete Toboggan

- Designed a 3D CAD model using the SolidWorks software to engineer a Davis steering system, incorporating a scotch yoke and steering wheel as potential components for the toboggan's steering mechanism
- Fabricated precise parts for assembly in the machine shop employing a lathe and mill
- Achieved a notable 3rd-place national ranking in the Greater Northern Concrete Toboggan Race
- Utilized: SolidWorks, machining principles

### Prosthetic Hand Bracket

- Optimized the weight-to-strength ratio of a prosthetic hand bracket design via the ANSYS software, by applying insights generated through Finite Element Analysis (FEA) methods
- Employed Von Mises Equivalent Stress analysis to pinpoint high and low-stress areas, enabling the removal of unnecessary material in low-stress regions for further refinement, while ensuring a safety factor of 2
- Utilized: ANSYS, stress and strain principles

### Crude Oil Pumpjack

- Employed MATLAB to redesign a crude oil pumpjack and model the mechanism as a four-bar system to track the motion of the end of the link, enabling a comprehensive study of its oscillating motion
- Executed a detailed modification process involving repositioning and resizing links within the mechanism to optimize the Timing Ratio (TR), therefore achieving an improved TR of 2.4
- Utilized: MATLAB, kinematics and dynamics of machines