

Eric Li

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Certified SOLIDWORKS Professional in Mechanical Design - Credential ID: [C-AFNQ52UR3P](#)

EDUCATION

Bachelor of Applied Science and Engineering (B.A.Sc), Mechanical Engineering

Sep. 2021 – Apr. 2026

University of Toronto – Robotics and Mechatronics Minor, 3.9 CGPA, High Honors

- **Relevant Courses:** Machine Design, Control Systems, Materials Science, Mechanics of Solids, Analog & Digital Electronics, Fluid Mechanics, Robotics, Numerical Methods, Thermodynamics, Heat and Mass Transfer

WORK EXPERIENCE

Co-op, Mechanical Engineering Design and Drafting – Nutrien

May 2023 – Aug. 2024

Saskatoon, Saskatchewan (Cory Potash Mine)

- Drove ~\$125,000 in cost savings on oversized brine piping installation by modeling a 4,500+ component personnel service headframe tower using Inventor and AutoCAD for slinging/rigging simulation.
- Led structural FEA on the column steel for a \$4,500+, 1-tonne wall-mount cantilever jib crane design, coordinating project management, procurement, and tradespersons discussions.
- Designed, modeled, and drafted a ~\$17,000 underground rehabilitation unit, ~\$15,000 belt conveyance headcovers, and a ~\$10,000 adjustable conveyor return-roller frame prototype, meeting union and Canadian mine safety regulations across **100+ km** of underground mine roads.
- Assembled 6000+ component ore hoist production headframe tower (Inventor and AutoCAD), used in mechanical simulation for a multi-million-dollar 2026 project forecast of an ore hoist bucket (skip) upgrade.
- 3D printed and assembled 1:100 miniature production headframe model, **permanently displayed on-site**.
- Drafted 6 professional AutoCAD slinging/rigging documentation drawings from field measurements for site and third-party contractor use regarding **any** large machinery imports into the mine.
- Modeled and simulated mechanical movement of advanced mining machinery for presentation involving the VP of the Potash Business Unit and executive safety committee overseeing all potash mine sites.

Laboratory Engineering Intern – Infinity Testing Solutions

Jul. 2022 – Sep. 2022

Mississauga, ON

- Built a Python/CSS/Figma GUI prototype for project tracking across 300+ active clients and **1,500+** instrumentation items.
- Aided in the assembly of a closed-loop 12,000 psi hydraulic intensifier cart controlled using **NI LabVIEW**.
- Helped with structural testing of 10+ guardrails, poles, and cement posts through controlled load fracture.

DESIGN EXPERIENCE

RSX (Robotics for Space Exploration) Rover Arm Team Member

Sep. 2022 - May 2025

- Partially developed/assembled a 300+ component Mars rover robotic arm model, for use in electrical control testing with machined and custom 3D printed parts; in preparation for URC (35+ team competition) and CIRC.

CanSat Competition Design Team Member

Oct. 2022 – Apr. 2023

- Modeled and designed an outer satellite shell, heatshield deployment mechanism (+ 2 candidates) and mount using Fusion360, with system integration for PCB and battery components in a can-sized satellite design.

SKILLS

Analysis & Simulation: FEA (ANSYS, Autodesk), MATLAB, LabVIEW, Minitab, SPICE, Excel

Design & CAD: SOLIDWORKS, FEA, ANSYS, Autodesk Inventor, Fusion360, AutoCAD, 2D Drafting, Revit, GD&T, DFM, PCB

Industrial: Servo Motors/Valves, Hydraulics, Arduino, Weldments, Lathe/Mill, Sheet and Structural Steel, Rigging

Programming & Tools: Python, C++, Java, HTML/CSS, Figma, UI/UX, Microsoft Office, Meridian