

Liana Sheridan

Mechanical Engineering Student at the University of Toronto

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Website: liana-sheridan.com



LinkedIn

SUMMARY OF SKILLS

- Two years of design experience, through entrepreneurship, internship experience, & coursework: **design/material analysis, manufacturing, rapid prototyping, formal engineering reports**
- High-performance teamwork: leadership, problem-solving, adapting to new situations
- Computer skills: **SolidWorks, Blender, Python, MatLab, MakerBot 3D Printing**

EDUCATION

University of Toronto - Bachelor of Applied Science - Mechanical Engineering

September 2023 - April 2027 (expected)

- Intended Minor / specialty interests: Mechatronics, Solid Mechanics and Product Design
- Relevant coursework: **Mech. Eng. Design, Material Science (failure analysis, material selection), Thermodynamics, Python, Statics/Dynamics, Manufacturing Engineering, Mechanics of Solids (FEA), Org. Behavior**

EXPERIENCE

Composites Sub-System Member - University of Toronto Formula Racing Team (UTFR)

September 2024 - Current

- Built molds & vacuum resin flow testbeds for fabricating composite layup aerofoils

Mechanical Engineering Intern - Kon Aerosystems

May - August 2024

- Early-stage startup working on commercial aircraft electromagnetic-assisted-takeoff systems
- Created renders and animations for the product mechanical design for website /investors
- Collaborated across specialties within the company: mech. design, business outreach/marketing
- Self-taught software design/rendering tools: Blender, Solidworks, Fusion360

PROJECTS

16:1 Reduction Co-linear Gearbox - University of Toronto

Fall 2024

Class project: Team-based design of a minimum 12:1 reduction gearbox

- Designed housing for gearbox
- Rapid prototyping: turn-a-round time of 2 weeks for design, print, and strength test before final test of operation via drill input

Hobbyist CNC Router - University of Toronto

Fall 2024

Class project: Team-based conceptual design of a hobbyist-level CNC router mechanically produced in SolidWorks

Generated project requirements & translation to design specifications; researched preferred storage and usage in homes, designed z-axis motion and legs of router

- Design Lead: Drew mockups in Procreate, used SolidWorks to render final design
- Presented multiple design concept alternatives & evaluated against project requirements; my design became fused with a teammate's for final project

Short-term Water Purification Device - University of Toronto

Spring 2024

Class project: Team-based design of a portable water purification device servicing the Greater Toronto Area including indigenous communities

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Generated project requirements & translation to design specifications; researched applicable local water sources regarding accessibility (e.g. boil advisories, environmental impact) for water purification

- Team Leader/Design Lead: Led team through conceptual design to prototyping, coordinated with real client regarding budget and needs, tested design iterations for feasibility and cost

Presented multiple design concept alternatives & evaluated against project requirements; my design was selected by the team for potential proposal to the client

Hart House Navigation Project - *University of Toronto*

Winter 2023

Class project: Team-based conceptual design of a handheld 3-D positioning device to assist new visitors navigating HartHouse, a large UofT community center

Generated project requirements & translation to design specifications; researched applicable local codes regarding accessibility (e.g. international language capability) for a navigation device

- Design Lead: Drew mockups in Procreate, used Blender to render final design
- Presented multiple design concept alternatives & evaluated against project requirements; my design was selected by the team for potential proposal to the client

Pandico Studio, - *Founder*

July 2020 - July 2023

- Founded and operated a successful Etsy business selling customized and original sticker art
- Designed artwork, website, packaging; fabrication using Cricut
- Self-taught planning, budgeting, marketing, and scheduling

EXTRACURRICULARS AND OTHER SKILLS

Varsity Water Polo, University of Toronto - *Athlete*

August 2023 - Current

- 10th National Collegiate Water Polo Championship win
- Learned/adapted to different roles within the team

National Chinese Honor Society Chapter, Fremont High School (Sunnyvale, CA) - *Founder, President*

August 2020 - June 2023

- Educated students on Chinese traditions, led tutoring sessions for students in intro Chinese classes
- Collaborated internationally with a Chinese outreach program at school, led chapter to communicate with high school students in China, and gained bilingual and cultural experience
- Led weekly meetings with student staff members for class projects, socials, and cultural presentations

California All-State Music Education Conference - *Bass Clarinet*

February 2018, 2019, 2021, 2023

- Four-time recipient of CASMEC, eventually first chair in concert and symphonic ensemble
- Prepared for recorded auditions plus a live chair placement after acceptance, 9-12 spots are offered out of all bass clarinetists in California
- Attended a four-day conference consisting of three days of practice and a performance