

TECHNICAL SKILLS

Computer Skills

- SolidWorks
- MATLAB
- RAVEN
- ANSYS
- Microsoft Office Suite

Mechanical Skills

- 3D Modeling
- 3D Printing
- Machining

Programming Languages

- C
- C#
- Arduino IDE
- PLC Programming

EDUCATION

University of British Columbia

Bachelor of Applied Science - Manufacturing Engineering

Co-op: Available for 16 months beginning May 2026

Expected Graduation: May 2028

ENGINEERING DESIGN TEAM

UBC Rover, Vancouver, British Columbia

Mechanical Rover Lab Member

September 2024 – Present

- Designed and developed a carousel system for precision rotation and positioning of multiple liquid solution samples to aid in life-detection testing on the UBC Rover
- Currently leading a small team to design and manufacture a drilling auger for soil life testing applications
- Gained hands-on experience with designing, SolidWorks, and 3D printing through prototyping and refining Rover assemblies for optimal performance
- Collaborated across multiple sub teams to troubleshoot design challenges, optimize functionality, ensure seamless integration, and meet project deadlines
- Demonstrated adaptability as a new team member by quickly developing technical skills through practical experience and collaboration, contributing to meaningful projects while fostering a passion for engineering design

TECHNICAL PROJECTS

RC Car, University of British Columbia

Designed and fabricated an RC car through multiple manufacturing processes

September 2025 – Present

- Currently collaborating in a team of seven to research, design, and produce an RC car with manufacturing processes
- Produced aluminum wheels with casting and machining, fabricated a thermoformed shell and constructed a composite for a chassis extension
- Prepared a comprehensive technical report detailing design objectives, prototyping, project management, experimental findings, manufacturing performance analysis, and data-driven conclusions
- Presented design rationale and technical results through an oral presentation to faculty and peers

Manufacturing Processes Laboratory, University of British Columbia

Gained hands-on experience with a wide range of manufacturing processes throughout a year-long lab course

September 2024 – April 2025

- Performed thermoforming, casting, deep drawing, injection molding, and spring winding to explore process parameters and material behavior
- Operated industrial equipment including milling machines, lathes, and welding tools to gain hands – on experience

- Fabricated composites using wet layup, prepreg, and vacuum infusion methods followed by mechanical testing to compare tensile strength, stiffness, and failure
- Completed detailed lab reports that analyzed each process' science, experimental results, and performance trends across different manufacturing methods

Rainwater Harvesting System for Van Anda, University of British Columbia
Addressed water scarcity issues in remote communities

March – April 2024

- Developed and evaluated multiple potential solutions using a Weighted Decision Matrix and a Streamlined Life Cycle Assessment, based on stakeholder needs
- Utilized Excel for system modeling to simulate real life performance, allowing further recommendation for optimal water collection, storage, filtration, pump, and power systems
- Completed an Expression of Interest and presented the final project to peers by defending the system as a reliable and cost-effective solution to water scarcity, and produced a detailed video with specifics

Adaptive Device: Assistive Mouse Clicker, University of British Columbia
Designed and presented a user-friendly device for a client with limited finger and wrist mobility

December 2023

- Collaborated with engineering students to brainstorm, design, and prototype an adaptive device
- Used a structured design process that included stakeholder/risk analysis, and concept evaluation using a Weighted Design Matrix
- Completed a Technical Memorandum that outlined the design process, requirements, and final recommendations

OTHER WORK EXPERIENCE

Gate Gourmet, Calgary, Alberta
Kitchen Helper

July 2023 – August 2023

- Assembled airline meals for Air Canada and WestJet, adhering to high hygiene standards and safety protocols
- Demonstrated reliability and punctuality by meeting daily production targets

VOLUNTEER EXPERIENCE

My Best Friend's Closet, Calgary, Alberta
Garment Preparator

July 2022 – August 2023

- Sorted, steamed and prepared donated clothes to empower low-income girls by helping provide fashionable clothing for a personalized shopping experience
- Upcycled donated clothing by ensuring high quality preparation, contributing to sustainable practices in the community
- Attained effective communication and collaboration skills, ensuring smooth operations and timely completion of tasks

AWARDS

South Middle Campus Society Outstanding Service Scholarship	2023
Mr. Bruce Parkin Integrity & Character Award for Grade 12 Badminton	2023
Alexander Rutherford Scholarship	2023

INTERESTS & ACTIVITIES

- **Sci-fi Media**
 - Passionate about games, songs, movies and books with futuristic themes such as *Cyberpunk 2077*, *Pacific Rim* and *Neuromancer*
- **Space Exploration**
 - Fascinated by engineering innovations and advanced space technology, such as rovers, that enable space exploration and a deeper understanding of extraterrestrial environments