



EDUCATION & CERTIFICATIONS

Mechatronic Systems Engineering

September 2017 – In Progress

- Simon Fraser University, 250-13450 102 Ave, Surrey, BC V3T 0A3 (3.60/4.33 CGPA)

Basics of Machine Tools Certification

January 2019

- Acquired basic skill of machine operations at SFU.

Microsoft Office Specialist Certification

June 2017

- Mastered Microsoft Office programs in Word, Excel, and PowerPoint.

HIGHLIGHTS OF SKILLS

Software

- C++
- Python
- MATLAB
- LabVIEW
- HTML/CSS

Mechanical

- Machine Design
- Milling/Lathe Machine
- SolidWorks
- Power tools
- Measurement Tools

Electrical

- Electronics
- Oscilloscope
- Function Generator
- Soldering
- Digital Multimeter

TECHNICAL WORK EXPERIENCE

R&D Engineer, Shield-X Technology

May – August 2019

- Performed high-impact testing using Hybrid III and the oblique impact test rig to investigate the effect of concussion and the rotational impact on different types of helmet technologies.
- Analyzed the obtained accelerometer graph and data from LabVIEW.
- Developed testing protocols to devise a new helmet evaluation method that is consistent and repeatable.
- Optimized the location of impact based on the most common impact area, impact radius and helmet geometry to minimize experimental error.
- Classified and compared data using Excel to rank the performance of each type of helmet.
- Conducted qualitative analysis using a highspeed camera after every test to ensure the test is performed properly.
- Used laser to accurately positioned hybrid III to its designated orientation.
- Redesigned the mechanical components of the test rig to improve the testing result.
- Updated the design of the test system using AutoDesk Inventor.
- Repaired the damping system and sensors to maintain the test facility.
- Contacted potential partners in China for manufacturing materials needed in the lab.

UX/UI Researcher, Simon Fraser University

September 2019 – Present

- Conduct web research and environmental scans of online learning environments and websites to review current web trends, capture examples, review online trend reports, and create summaries.
- Assist with the current site review, including data collections, cataloguing and content porting.
- Contribute to the testing of new features, including user testing and assisting with focus groups.
- Design web surveys and track user feedback.



TECHNICAL PROJECT EXPERIENCE

Mechanical Design, Ecobot Competition

October 2018- February 2019

- Designed a waste collecting robot to differentiate organic and nonorganic materials.
- Modeled a collecting and sorting mechanisms using SolidWorks.
- Refined the mechanical design of the robot through iterative testing process.
- Placed second in the competition and won the People's Choice Award for its design.

Sustainable Energy Design

January – April 2018

- Prototyped a personal light source in areas without electricity.
- Written an RFQ report entailing a human-powered pedal generator that is efficient and durable.

COMMUNITY INVOLVEMENT

Autopilot/Software Development Lead, Team Guardian

October 2017 - Present

- Lead and managed the autopilot team at SFU's drone club to collaborate and delegate tasks.
- Built a user-interface for the ground control station to monitor the drone using ReactJS.
- Programmed the drone simulator to receive import parameters, such as its global coordinate, battery level, and its altitude relative to home location.
- Written a design report for drone competition.

First-Year Representative, MSESS

September 2017 – May 2018

- Promoted and prepared school events such as board game night to improve social interactions.
- Addressed student's concern and directed student to the right resources.

President, SCS Environmental Club

Feb 2015 – May 2017

- Raised environmental awareness in the community.
- Built and maintained two greenhouses and a school garden.
- Collaborated with the City of Surrey to remove invasive species.

Volunteer, Elim Village

March 2015 – April 2017

- Facilitated interactive activities for seniors to enhance emotional and physical well-being.
- Prepared fun activities for elders, such as bowling, painting, and cleaning up after the events.

HONOURS & AWARDS

BC Hydro/EGBC Scholarship

December 2018

- Received the scholarship based on academic achievement and community involvement as a second-year engineering student.

Dean's Honour Roll

May 2017 – Present

- Recognized as a high academic achiever with a GPA of 3.5 or higher at SFU.

BC Excellence Award

May 2017

- Awarded \$5,000 as one of the top fifty-five grade-twelve student in BC who has demonstrated service and leadership and has shown aptitude for chosen career paths.

Schulich Leader Nominee

2017

- Nominated in one of the most coveted undergraduate STEM scholarships.

TWU Chemistry Olympiad Competition – 1st Place

April 2017

- Performed accurate and detailed calculations and titration experiments that results in first place.
- Competed as a team of three against other senior students from each high school.