

Education

University of British Columbia **Expected Graduation: May 2024**
Bachelor of Applied Science - Integrated Engineering,
Specializing in Mechanical and Software

Manufacturing:

MIG, TIG and Gas Welding, 3D
 Printing, Water-Jet cutting, Plasma
 and Laser Cutting, Soldering

Software:

SolidWorks, OnShape,
 MATLAB, RStudio, Microsoft
 Office, Github, Arduino

Languages:

C, Python (SKLearn),
 JavaScript, HTML, CSS
 (Bootstrap), Assembly, VHDL

Technical Projects

Tremor Stabilization Glove, Vancouver, BC **September 2021 – April 2022**
Team Captain, Software Team Lead

- Leveraging Python and machine learning to control a motorized flywheel for a wearable device to mitigate Essential Tremor in the hands
- Coordinating weekly team meetings and ensuring timeline kept to the project schedule, managing 5 team members while actively communicating with sub teams to monitor progress, discuss design alterations, and resolve conflicts
- Wrote Technical Memorandum to be reviewed by professors and the Research and Ethics Board by determining project requirements and specifications, performing cost analysis and assessing possible risks

Audio Synthesizer Glove, Vancouver, BC **January 2021 – April 2021**
Software Team Lead

- Aided in the software implementation of a glove that translates hand gestures into sound
- Communicated sensor data between an ESP-32 microcontroller and a custom user interface hosted on an independent web server over Wi-Fi
- Cooperated with Electrical and Mechanical teams to determine product specifications, write up technical reports, and ensure the wellbeing and morale of the team was maintained

Engineering Design Teams

UBC Unmanned Aircraft Systems (UAS), Vancouver BC
Mechanical Designer, Integration Specialist

Nov 2021 - Present

- Designed, developed, and assembled a package retrieval system utilizing linear actuators capable of carrying 2kg
- Optimized drone maneuverability through stress calculations, prototyping, and manufacturing of landing gear over 4 iterations, reducing weight by 40%, and manufacturing time by 70%.
- Ensured the completed drone adhered to all outlined restrictions and scheduled deadlines through a combination of rapid prototyping, load testing, weight optimization, and endurance testing

Work Experience

Canada Post Corp, Delta, BC
Postal Clerk

Feb 2021 - Present

- Sort incoming and outgoing packages according to type and destination by hand or optical scanning devices, enter information into data system
- Weigh outgoing letters and parcels, computing costs according to desired location, weight, and size, and affixing correct postage
- Manage customer inquiries regarding mail regulations and procedures, postal rates, and suggesting postal distribution methods based on parcel destination and dimensions.

Shanghai 360, Delta, BC
Restaurant Server

March 2015 - Present

- Assisted manager in daily operations, multi-tasking in a fast-paced environment while managing customer complaints
- Responsible for compiling nightly sales and profits, ensuring accurate accounting for records, and processing cash and credit card transactions
- Increased overall productivity by 50% through the training of 20+ new employees on the workflow processes and maintaining serving & safety standards

Volunteer Experience

Boundary Bay Bluebacks, Delta, BC
Swim Coach

May 2016 - August 2020

- Mentored, managed, and motivated over 60 swimmers aged 5-14
- Improved athletes' performance by 40% through instruction of proper techniques, providing morale and motivating swimmers to push themselves and exceed their goals
- Analyzed competition performance over 6 seasons and provided personalized drills for individual strengths and weaknesses

Royal Canadian Air Cadets, Delta, BC
Flight Commander / Color Party Commander

September 2013 - May 2019

- Instructed 70+ young cadets, aged 12-16 in leadership, aviation, communication, and survival
- Actively engaged in community events, recruiting an additional 20+ members, and raising over \$10,000 for veterans and the Canadian Legion
- Commanded a team of 5 riflemen and flag bearers during parade nights, instilling comradery and esprit de corps, whilst upholding high standards in drill and decorum to a 99 point standard

First Aid Team Captain / Instructor

- Instructed 10+ youths on the First Aid team, teaching communication and proper response techniques

Air Rifle Marksmanship Team Captain / Range & Safety Instructor

- Instructed 18+ youths on the marksmanship team on safety and proper handling of firearms

Interests & Activities

Air Cadets | Architecture | Carpentry | Metalwork | Programming | Swimming | Video Games | Web Design