

Oliver Izen

Mechanical Engineering | osizen@icloud.com | 604-368-3167 | Portfolio: oliverizen.ca | Vancouver, BC

TECHNICAL SKILLS

DESIGN

- Solidworks (CAD, FEA)
- Fusion 360 (CAD, FEA)
- AutoCAD

MANUFACTURING

- 3D Printing (FDM, SLA)
- Machining (Mill, Lathe)
- Design for Manufacturing

PROGRAMMING

- MATLAB/Simulink
- Arduino
- C

OTHER

- Microsoft Office 365 (Excel, PowerPoint)
- Google Workspace

EDUCATION

University of British Columbia

Expected May 2029

Degree: BASC - Mechanical Engineering - 2nd Year (Pre-acceptance into mechatronics)

Co-op: Available for 4 or 8 months beginning in May 2026

Grade Avg: 86.7%

DESIGN TEAM EXPERIENCE

Formula UBC SAE Racing Team, Vancouver, BC

September 2025 – Present

Suspension Subteam Member

- Coordinated with members & subteams to design packaging of front and rear shock systems
- Simulated & optimized bellcrank geometry using principles of solid mechanics and Solidworks FEA
- Hands-on work fabricating parts and assembling suspension systems

WORK EXPERIENCE

Pedalheads, Vancouver, BC

July 2023 – August 2024

Instructor

- Led engaging & structured bike lessons for children, helping develop confidence and cycling skills
- Engaged with parents, children, and team members to foster a supportive learning environment
- Adapted teaching strategies to accommodate different learning styles and skill levels

TECHNICAL PROJECTS

Nintendo Switch 2 Travel Case, Personal Project

June 2025 – August 2025

- Designed & manufactured a 3D printed hardshell travel case for a Nintendo Switch 2 balancing form and function
- Navigated numerous manufacturing challenges through online research, physical testing, and consultation with manufacturing engineers from JLC3DP
- Utilized rapid prototyping and advanced CAD techniques to create an efficient workflow

Lunar Additive Base (LAB), Autodesk Design Competition

April 2024 – July 2024

- Awarded first prize for designing a 3D printed lunar habitat for the Autodesk Make it Resilient Design Competition
- Followed a manufacturing focused design philosophy to create a lunar habitat optimized for sustaining human life while remaining simple to build using lunar materials and modern robotics
- Incorporated elements of current research and future mission plans from the ESA and NASA into project



THE UNIVERSITY OF BRITISH COLUMBIA

Co-op Program
Faculty of Applied Science

COOP.APSC.UBC.CA
604-822-3022
apsc.coop@ubc.ca

Automotive Design in CAD, Personal Project

August 2020 – Present

- ♦ Created a portfolio of over 40 unique automotive designs in CAD inspired by real cars and technological innovations
- ♦ Developed skills in various CAD softwares including Solidworks, Fusion 360, and Shapr3D

Electric Motor Car, Physics 12 Project

May 2024 – June 2024

- ♦ Designed and manufactured a small car powered by custom built brushed DC motor
- ♦ Applied principles of electricity and magnetism to maximize motor performance
- ♦ Optimized mechanical design to reduce weight and material usage while retaining strength and stiffness

VOLUNTEER EXPERIENCE

West River Karate, Vancouver, BC

September 2016 – July 2023

Assistant Instructor

- ♦ Taught and assisted training classes of all ages
- ♦ Developed and practiced communication and leadership skills
- ♦ Devoted 400+ hours of teaching time

The Griffins' Nest, Vancouver, BC

April 2021– June 2024

Student Journalist

- ♦ Contributed to the paper writing news and analysis articles on local and global affairs as well as opinion pieces reviewing film and music
- ♦ Learned and applied fundamentals of journalism to write effective pieces
- ♦ Engaged students and community members to distribute printed newspapers

AWARDS

2025 UBC Dean's List

2025 UBC Writing and Research in the Disciplines Student Conference Speaker
Opportunity presented to top 30 WRDS 150 Students for exemplary research work

2024 First Prize + Scholarship - Autodesk Make it Resilient Design Competition

2024 BC Academic Achievement Scholarship

2022 Gold - Karate Canada National Championships,
St. John's, NL - National Champion in Cadet 70+ kg Kumite and member of Team Canada

2022 Bronze - Commonwealth Karate Championships, Birmingham, UK

INTERESTS & ACTIVITIES

KARATE: Training 14 years. Competed internationally as a member Team BC and Team Canada

CYCLING: A way for me to stay active and explore new places. I also love the engineering of bikes.

AVID READER: Particular interest in sci-fi and fantasy genres



THE UNIVERSITY OF BRITISH COLUMBIA

Co-op Program
Faculty of Applied Science

COOP.APSC.UBC.CA
604-822-3022
apsc.coop@ubc.ca