

Tom Rotbart Manufacturing Engineering Student

MD6-502 2205 Lower Mall, Vancouver, BC, V6T 1Z4 TomRotbart@gmail.com | 604-772-0072 | [LinkedIn](#)

TECHNICAL SKILLS

Software: Star-CCM+, SolidWorks, Plant Simulation, Ansys Fluent, Python, HTML, CSS, JS

Hardware: Wind tunnels, Environmental chambers, Waterjet, CNC, Raspberry Pi, Arduino

Processes: CFD Analysis & Validation, Composite Manufacturing, MIG Welding

EDUCATION

University of British Columbia

Expected Graduation: April 2026

Bachelor of Applied Science - Manufacturing Engineering, Commerce Minor

ENGINEERING STUDENT TEAMS

Formula UBC Racing, University of British Columbia

September 2020 – Present

Aerodynamics Lead, Treasurer

- Leading a team of 8 engineering students through aerodynamic engineering design process consisting of researching, designing, developing, validating, and documenting a FSAE vehicle aero package
- Designed and simulated dual pass single core radiator to validate cooling system of vehicle using Star-CCM+ heat exchangers and confirmed under ideal cooling conditions, 17kW of heat can be dissipated
- Simulated a sweep of Front Wing locations to validate undertray performance in 3D using Star-CCM+. Determined ride height of 12% chord length maximized rear diffuser efficiency at 4.17 L/D ratio

TECHNICAL PROJECTS

Website Portfolio, Personal

July 2021 – Present

- Using HTML, CSS, JS, & jQuery to code a [static website](#) from scratch to be hosted on GitHub and updated with completed and ongoing projects

OTHER WORK EXPERIENCE

Paper Education Company, Montreal, QC

November 2020 – Present

Tutor – Math/Science

- Tutoring students grade K-12 using Socratic methods in various topics within mathematics and physics via text and visual drawings online

VOLUNTEER EXPERIENCE

Youth Helping Youth, Surrey, BC

September 2019 – January 2022

Information Technology Member, Record Keeper

- Collaborated with a team of 6 to deploy a secure and organized internal photo storage software using Django framework, HTML, CSS, & JS
- Created, taught, and implemented bookkeeping system for all seven North American branches after self-learning how to book-keep using Microsoft Excel

INTERESTS & ACTIVITIES

- Studying CFD Turbulence Modelling (Reading: Turbulence Modeling for CFD by David C. Wilcox)
- Watching Formula 1 and sim racing
- Ultimate Frisbee, Basketball, Speed Cubing (Rubik's cubes)