Tom Rotbart

3rd Year Manufacturing Engineering Student

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in LinkedIn Profile   ⚑ Project Portfolio

EDUCATION

Bachelor of Applied Science
University of British Columbia
Sep 2020 – present
Manufacturing Engineering, Commerce Minor
Dean's Honour List

SKILLS

Software & Electronics
Star-CCM+ (CFD), SOLIDWORKS, Ansys Fluent, Python, HTML, CSS, JavaScript, Tecnomatix Plant Simulation, R, HSMWorks (CAM), Raspberry Pi, Arduino, MATLAB, MS Office, Excel

Testing & Manufacturing
CFD Analysis & Validation, Wind tunnels, Environmental chambers, Waterjet, Composite Manufacturing, CNC, MIG Welding

PROJECTS

Website Portfolio
Jul 2021 – present
- Used HTML, CSS, JS, & jQuery to code a static website hosted on GitHub updated with completed and ongoing projects

AWARDS

Patricia M. Mohr Award
Patricia M. Mohr - UBC

University of Toronto National Book Award Recognition
University of Toronto

Langley Central Rotary Club Scholarship
Langley Central Rotary Club

PROFESSIONAL EXPERIENCE

Aerodynamics Lead & Treasurer
Formula UBC Racing
Sep 2020 – present
- Lead a team of eight engineering students through the aerodynamic design process of researching, designing, developing, validating, and documenting a FSAE vehicle aero package
- Defined aerodynamic requirements and objectives derived from team philosophy and goal to justify aerodynamic parameter selections.
- 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+ and determined a ride height of 12% chord length maximized rear diffuser efficiency at a 4.17 L/D ratio
- Organized and hosted tutorials on the basic principles and process of CFD using Star-CCM+ for students across UBC design teams

Tutor – Math/Science
Paper Education Company
Nov 2020 – present
- Tutored students grade K-12 using Socratic methods in various topics within mathematics and physics

ORGANIZATIONS

Youth Helping Youth
Information Technology Member, Record Keeper
Sep 2019 – Jan 2022
- Collaborated with a team of six to deploy a secure and organized internal photo storage software using Django framework, HTML, CSS, & JavaScript
- Created, taught, and implemented bookkeeping system for all seven North American branches using Microsoft Excel