

Benjamin Sheng

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Canadian citizen eligible for the UK Youth Mobility Scheme Visa (no employer sponsorship required).

LEADERSHIP

- UBC Solar – Aeroshell Team Co-Lead** September 2025 - Present
- Leading a team of 12 plus engineering students through the aerodynamic design of our vehicle
 - Directed collaboration and integration between aeroshell car design and all 7 other sub-teams
 - Reduced CAD-to-CFD timeline by 75%, completed 8 iterations in 2 months

CERTIFICATIONS AND SKILLS

Certifications: Driver61 Aerodynamics Course, CSWA SolidWorks Certification (100% Score)

Skills: Fusion 360, SolidWorks, Ansys Fluent, StarCCM, 3D Printing, Java, Python, Excel, C++, Waterjet Cutting

DESIGN PROJECTS

- Aeroshell CFD Analysis – Ansys Fluent, CFD Analysis and Iteration – UBC Solar** September 2025 - Present
- Ran 3D Ansys Fluent simulations with 24 inflation layers and over 20 million cells
 - Achieved a Cd and CdA of 0.1205, Cl of -0.174 with -66.6 N of lift
 - Made over 10 full car design iterations based on CFD values through continuous improvement
 - Currently transitioning the sub-team to StarCCM

- Crosswind CFD Analysis – StarCCM+ – Personal** July 2026-August 2026
- Ran 3D StarCCM+ crosswind simulations with 25 prism layers and over 14 million cells
 - Tested a one-sail and two-sail configuration of UBC Solar's car to analyze the aerodynamic benefits.
 - Achieved over 100 newtons of thrust through conducting 15+ simulations.

- Composite Manufacturing – UBC Solar** May 2026 - Present
- Led the manufacturing of our 5m by 2m car aeroshell
 - Well-versed in wet lay-ups using 3K twill carbon and divinylcell foam core
 - Well-versed in manufacturing pre-preg carbon sandwich panels with aluminum or aramid honeycomb core

- WindTunnel – Full CAD and Working Tunnel – Personal** January 2025 - August 2025
- Combined my skills of CADing in Fusion 360 with manufacturing with a 3D printer to build a 1:18 scale tunnel
 - Improved my coding skills with Arduino and my electronics skills, such as crimping and soldering
 - Built from scratch with countless iterations to optimize the airflow and results given by the chamber

- Carbon Fiber Plugs – SolidWorks Surfacing – UBC Solar** January 2025 - May 2026
- Proficient in using SolidWorks Surfacing to create full-size carbon fiber foam plugs for our car
 - Streamlined documentation for surfacing issues and created tutorials on how to make plugs

PROFESSIONAL EXPERIENCE

- UBC Mechanical Engineering – Research Volunteer for Professor Steven Rogak** May 2026 - Present
- Built a box that reads a boat's GPS and heading as well as the real and apparent water current and wind speed
 - Collected over 9000 data points as the box was fitted onto a boat and sailed to Alaska
 - Built a live boat tracking website that displays all data which is transmitted through the cloud

- Crescent Camps – Head Instructor + Camp Counselor** Summer 2024 - Summer 2025
- Led 3-5 counselors and volunteers and 15+ kids ranging from 6-13 to run 6 weeks of summer camp
 - Learned crucial skills in patience, adaptability, and conflict resolution when working with the campers

EDUCATION

- University of British Columbia – Vancouver, BC** September 2025 - Present
- Materials Engineering Major