

Heanan S. Bird

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Citizenship | Website Portfolio: <https://Birdbh.github.io>

Education

University of British Columbia | Kelowna, BC

Bachelor of Applied Science in Manufacturing Engineering, GPA 3.8

August 2020 – Present

Expected April 2024

Skills

Programming: Java, Javascript, C++, Node.js, Tailwind, Python

Software: Solidworks CSWA, Microsoft Suite, Matlab

Experience

University of British Columbia | Kelowna, BC

August 2021 – Present

Resident Advisor

- Planned and coordinated weekly recreational activities for 200 undergraduate residents on a weekly basis
- Led a team of 7 Resident Advisors to advertise and referee board game and sports tournaments for over 500 residents
- Created a spike ball tournament for freshman undergraduates first month of work, prepared and oversaw the tournament alone, awarded Resident Advisor of the month because of tournament efforts

Projects

Canadian Space Agency High Altitude Balloon Challenge

October 2021 - Present

- Proposed an experimental design to test efficiency of silicon semiconductor designs to mitigate Single Event Upsets in microcomputers to a peer design team, which was accepted and sent to the Canadian Space Agency
- Wrote 4 sections of a technical proposal on adverse condition hazard mitigation and success criteria, submitted proposal to Canadian Space Agency for hardware funding, proposal was accepted with launch scheduled for September 2022
- Researched 40+ hours on designing testing apparatus for high altitude conditions and reported to design team for initial design apparatus to be accepted

UBCO Concrete Taboggan Race Team

October 2021 - Present

- Designed 4 different structure member supports for Taboggan, tested those supports in over 50 Solidworks simulations, contributed that data to the final design and construction
- Sandblasted, milled, and cut metal components for 20+ hours in machine shop and added to complete Taboggan superstructure
- Poured 15 batches of experimental concrete for Concrete Sleds, tested concrete in hydraulic press, recorded data to fit within competition specification parameters for Great Northern Concrete Taboggan Race

UBCO Formula SAE Motorsports Team

October 2021 – February 2022

- Completed CSWA Solidworks Certification to gain access to Full Vehicle Assembly in Grab CAD, used Grab CAD Access to make steering wheel sensor mounts
- Designed 4 steering wheel sensor mounts and printed 40+ models using 3D printers in over 100 hours of Solidworks modeling, mounted final design to connect electronics triggers to PCB board

Western Software Engineering Competitions

December 2021 – January 2022

- Used Java and Python on a team of 4 to write a bomb sweeping simulation, received second place in the UBC Okanagan Software Engineering Competition
- Learned Tailwind CSS and Node.js in a week to compete in Western Software Engineering Competition, wrote 100+ lines of HTML, CSS, and JavaScript in 8 hours for competition
- Designed Website Layouts both for competition submission and personal design in using tailwind, leveraged knowledge to create my own web portfolio and showcase engineering projects

3D Printing Puzzle Box Designs

November 2021 – January 2022

- Gained knowledge printing of 100+ hours of puzzle box components I designed
- Engineered puzzle boxes in Solidworks and diagnosed design issues including improvement in both design and printing speed