Education

University of British Columbia, Bachelor of Applied Science

2022 - 2027

Dean's Honour List - CGPA: 87.2% | 3.8 / 4.0

Experience

UBC Uncrewed Aircraft Systems, Aircraft technical lead

May 2023 - present

- Currently managing an interdisciplinary team of of 10 engineer students on a VTOL project

UBC Uncrewed Aircraft Systems, Aircraft subteam

2022 - May 2023

- Wing Specifications: Responsible for selecting airfoils and designing wings for new 2023 aircraft
- Wing Analysis: Ran analysis on wings using simulation XFLR5 and XFOIL to obtain lift values and moments generated by control surfaces
- Wing CAD: Used SOLIDWORKS to create production ready CAD of the aircraft wings
- Landing gear CAD: Designed and modeled CAD for the landing gear of an aircraft with a 14% weight reduction over previous iteration.

Projects

Sonar Depth Sensing 2023

- Used MATLAB to display real time data from GPS and IMU sensors
- Implemented a Kalman Filter to process sensor data to reduce uncertainty in measurements
- Created a custom PDB to manage connections to Arduino
- Used depth data from a underwater distance sensor with positional measurements to create a bathymetric map

Single Axis Solar Tracker System

2022

- Arduino code for controlling tilt of solar tracking system
- Circuit diagram of components
- Signal processing of data obtained from the solar tracker

Skills

Circuit design, FEKO Simulations, Signals Processing, Controls, Embedded Systems, MATLAB & Simulink, python, C & C++, git, CAD (SOLIDWORKS, AutoCAD), Manufacturing