

HIGHLIGHTED TECHNICAL PROJECTS

Hydroponics: Soilless horticulture with remote nutrient monitoring

Drone: FEA, electronics and mechanical design

Formula UBC: Underbody design, adding 67% more downforce

Extended Essay: CFD analysis of subsonic wing planform geometry

FORMULA UBC SAE (ENGINEERING DESIGN TEAM)

Aerodynamics Lead (Summer 2019 – Summer 2021)

Aerodynamics Team Member, Advisor (2017 – 2019, 2022)

I led the development of one of the team's most ambitious aerodynamic packages, involving CFD analysis, track testing and aerodynamic design, composites manufacture and materials testing.

TECHNICAL WORK EXPERIENCE

Drive Systems Engineering Intern (May 2022 – September 2022)

Tesla Motors

Designed and built an automated system (NDA). Design pulled from knowledge of fluid mechanics, data acquisition and welding.

Battery Engineering Intern (May 2021 – December 2021)

Tesla Motors

CAE (fluid and electromagnetism simulations) and data analysis – typically with MATLAB - for battery thermal systems.

Quality Control Co-op (January 2021 – April 2021)

PepsiCo Beverages Canada

Diagnosed causes for low product yield, took part in daily quality-related operations. I also automated many of my daily tasks.

Applications Engineering Support (July – December 2019)

Custom Gaskets Industrial Specialties (CGIS)

Created a system for automatic valve-actuator sizing and worked with a supplier to design and manufacture brackets and couplings.

Summer Engineering Internship (May – August 2018)

Bermuda Electric Light Company Ltd.

Designed a semi-autonomous chemical transfer system.

NON-TECHNICAL WORK EXPERIENCE

Communications Assistant – UBC Mech (2020)

Summer Student – STEM Camp (2017)

Summer Student – Landscaping (2014 and 2015)

TECHNICAL SKILLS

CAD

SolidWorks (CSWA)

Autodesk Inventor

Catia V6

Programming

MATLAB, Python

Java, VBA, Arduino

HTML, CSS, ReactJS, jQuery

Computational Fluid Dynamics

Star-CCM+

Machining

Mill, lathe, waterjet

Composites Manufacture

Wet layups and prepreg CFRP

VOLUNTEERING

Access Madagascar Initiative

(August 2016)

Bermuda Zoological Society

(2015-2016)

Bermuda Conservation Services

(2012-2015)

EXTRA-CURRICULARS

Piano (2013-Present)

Aikido (2006-2017)

Track (2013-2017)

RECENT AWARDS

BELCO STEM Education Award

(2019)

Department of Workforce

Development (2019)