

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 (ENGINEERING DESIGN TEAM)

Aerodynamics Lead (Summer 2020 – Present)

Aerodynamics Co-Lead (Summer 2019 – Summer 2020)

Aerodynamics Team Member (2017 – 2019)

I have overseen the development of one of the team's most ambitious aerodynamic packages to date, leading work such as computational fluid dynamics (CFD) studies, track testing, CAD, structural and aerodynamic design, composites manufacture and mould design and materials testing.

TECHNICAL WORK EXPERIENCE

Quality Control Co-op (January 2021 – Present)

PepsiCo Beverages Canada

- Investigation of product yields to improve line performance
- Daily operations
- Automation with VBA and JavaScript

Applications Engineering Support (July – December 2019)

Custom Gaskets Industrial Specialties (CGIS)

- Automated valve selection with VBA and Office JS
- Automated standardized valve-actuator mounting selection
- Ad-hoc CAD, drafting and component assembly

Summer Engineering Internship (May – August 2018)

Bermuda Electric Light Company Ltd.

- Designed a semi-autonomous chemical transfer system
- Water testing and combustion analysis
- Created extensive documentation for auxiliary systems

NON-TECHNICAL WORK EXPERIENCE

Communications Assistant (September – December 2020)

UBC Mechanical Engineering

Summer Student (July 2017)

Bermuda Electric Light Company – STEM Camp

Summer Student – Landscaping (July-August 2014 and 2015)

West End Development Corporation

TECHNICAL SKILLS

CAD

SolidWorks (CSWA)

Autodesk Inventor

Programming

Python, Java, VBA, Arduino

HTML, CSS, JQuery

Computational Fluid Dynamics

Star-CCM+

Machining

Mill, lathe, waterjet

Composites Manufacture

Wet layups and prepreg CFRP

Drafting

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)