# Objective

To achieve a broader working experience, while working in a position that utilizes my knowledge, understanding, and acquired skills to develop my career path as an engineer.

# Skills & Abilities

* 4th year Mechanical Energy Engineering student with specialization in energy systems at UOIT
* CAD and finite element analysis experience with Siemen’s NX 10.0, Solidworks, Rhinoceros 5
* Leadership skills combined with the ability to assist with crew work activities
* Problem solving skills working with designing and implementation of innovative ideas in the engineering field
* Ability to think ‘outside of the box’ to engage in difficult group projects and overcome obstacles
* Both physical hands on experience & excellent communication skills, with attention to detail
* Ability to meet deadlines whilst following proper procedure, with experience from multiple years of excelling at balancing intern work in the engineering field and a full course load at UOIT
* Experience with preforming preventative maintenance whilst putting safety first

# Education & training

## **BEng (Honours), Mechanical Engineering with Energy Systems** Graduation: April 2018

## University of Ontario Institute of Technology (UOIT), Oshawa, ON

* Completion of design courses, which includes CAD modelling and motion simulation with use of Siemens NX 10.0, AutoCAD, Solidworks and Rhinoceros 5
* Programming experience with programs such as MatLab, C++, HTML, and MultiSim coding
* Design of a theoretical co-generation power plant for an underground city in Australia using a geothermal heat source as an input to produce electricity, heat and cooling as multiple outputs.
* Designed a tire handling mechanism that grasped a tire from one of three input conveyors, flipped the tire 180, rotated to a higher altitude output conveyor, then stacked tires. This project required concept generation, CAD modelling and assembling, motion simulation, finite element analysis, coding of the motion and the creation of a physical model.

Forklift License 2017

Fall Arrest Training 2016

Scissor lift License 2016

# Experience

## **Local Exhaust & Ventilation Company (LEV-Co)**September 2017 – PresentEngineering Intern

### Met with clients to record customer needs and requirements for future designs or retrofitting of current models

### Design and CAD models of new designs and innovative ideas for company products

### Problem solving by taking an old product and making a more functional design that is functional, low cost and simple to implement

### Design and retro fitting of mechanical components and assemblies for exhaust extraction systems.

## **Automotive Centre of Excellence (ACE) Wind Tunnel**May 2016 – PresentEngineering & Operations Support

* Assisted with operation of the wind tunnel and various automotive testing chambers
* Worked under the supervision of a refrigeration mechanic, repairing and improving systems (i.e. chillers, air make up/handling units, pumps, condensers, compressors and heat exchangers that ran the facilities climatic temperature capabilities).
* Lead tours for clients, professors, PhD students, and the general public, showcasing the facilities innovative capabilities and recapping previous successful testing
* Assisted with testing, following up with a written report and summary for clients

# Projects

* **Pin-on-Disc Tribometer** – Worked with a group of student engineers to design and develop a fully functional tribometer for wear and friction testing. The tribometer has a variable speed control for any testing. The tribometer will be implemented into future engineering student’s lab experiments at the University of Ontario Institute of Technology.
* **Button Pressure Taps –** A client required small pressure taps for measuring pressure on their test object under high wind testing. I designed pressure taps that would work with Scanivalve pressure tubes for the test. Design, outsourcing manufacturing and implementation were all done under a strict deadline.
* **Balancer Gear plate –** Design of a new gear plate for a exhaust hose balancer at LEV-Co. This gear plate retro fit allowed for a ratchet and pawl system to now operate extremely efficient. The new design met customer needs as the old design gave the client problems with daily operation.
* **Hose Reel Redesign –** Changing a 50 year old design of all standard hose reels used in machine shops, garage bays and any industrial setting, My design of the hose reel is much more compact, effieent in locking and overall client use.
* **Vehicle Refrigeration** – Ran tests on a vehicle to find optimal refrigeration levels in a common vehicle for a client. Reported to client with a full report write up with conclusions and findings.

References are available upon request.