WILLIAN MELNECHUKY

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HIGHLIGHTS OF QUALIFICATIONS

- Excellent problem solving and technical skills with a focus on **continuous improvement** and flexibility developed through **16 months of engineering co-op experience**
- Excellent leadership and teamwork developed by **leading McMaster Hyperloop team,** curriculum group projects and Designathon participation
- Strong communication and time management skills gained through academic courses and personal development
- Interpret mechanical design and apply mechanical engineering theory from co-op work projects and school labs

CERTIFICATIONS

Lean Six Sigma Green Belt (ICGB)
(August 2021 – No Expiration)
Six Sigma Global Institute
Credential link

Project Management
(August 2021 – No Expiration)
Six Sigma Global Institute
Credential link

EDUCATION

Bachelor of Engineering, Mechanical Engineering & Management Co-op
McMaster University, Hamilton, ON

- 5-year program pursuing minor in Commerce
- Expected Graduation - Spring 2022

PROJECTS

Easy Snow Shovel
(Jan 2019-April 2019)

- Designing a spring-loaded shovel utilizing stress analysis knowledge to account for mechanical loading
- Working diligently in a team of 4 with mentor guidance and following a design timeline
- Shaping the most optimal design by using the Design Process
- Comparing design performances utilizing Inventor & Excel to perform Free Element Analysis (FEA) and equation solving to allow for iterative design

The Frog – Robot Race
(Jan 2018- May 2018)

- Constructed an obstacle traversing robot optimizing for these criteria: speed, manufacturability, weight, and ingenuity
- Competed against classmates and cooperated with a team of 4 placed in the top 80% of the class
- Used various tools such as: Arduino, Laser Cutting, 3D Printing, Tolerances, Design Process, SOLIDWORKS and FEA

SKILLS

Core software competencies include:

- CAD Software: SOLIDWORKS, Inventor, Siemen NX, ANSYS, GD&T, Parametric Software
- Arduino, Python, MATLAB, Visual Studio, GitHub, Excel VBA, Power Automate, Power Apps
- Access, SQL, Power BI, Microsoft Office, Visio, Jira, and Trello

EXPERIENCE

Product Engineer Intern *(May 2019 - August 2020)*
Cogent Power Inc, Burlington, ON

- Lead developer of an autonomous design vetting process. Brought the project from planning to the testing and implementation phase. Ensured the project met deliverables with **integration** and **scope management**.
- Provided engineering support to production through interpreting and creating detailed blueprint drawings. Created an avenue to add customer value by creating production drawings they lacked and support inhouse projects, machine maintenance and production jigs.
- Performed **root cause analysis** on process failures using **Pareto charts** and **fishbone diagrams**. Developed a computer system to better record process failures and to alert and guide area leaders towards **Poka-Yoke** solutions or **FMEA** meetings.
- Crafted and implemented projects to decrease production **cycle time** and enhance **quality**. Reduced cycle time of a product line from 1 week to 2hrs and realized **$10,000 of yearly savings**. Initiated efforts to move from paper to online quality documents and develop **control charts**.
- Constructed product costing, job order scheduling and product handling requirement models (e.g., Lift Permit and Shipping support requirement) to reduce cycle time and ensure consistency
- Created Data Models using Pivot Tables, Power BI to guide business decisions

Shipping Service and Warehouse Associate *(May 2017 - Aug 2021)*
Pool Supplies Canada, Burlington, ON

- Supervised and trained new hires and oversaw integrity and accuracy of all products leaving the warehouse. Established work procedure standards to ensure processes were consistent.
- Increased efficiency of the shipping process by **80%** using programming in Python to improve current work systems.

EXTRACURRICULARS

Electrical Lead *(Jan 2019 – Aug 2020)*
McMaster Hyperloop Team

- In charge of project management for team of 16 and providing support to meet project objectives
- Led projects including BMS development, Pneumatic System and Eddy Current Breaking Prototypes
- Ensured projects met budget, schedule, and deliverable requirements laid out in planning phase
- Monitored and controlled project scope, resources, and communication
- Utilized **Kanban Board** in Jira & Trello to organize **Work Breakdown Structure** within the team

McMaster Designathon Competitor *(Jan 2018)*
Retractable Wheel for an Autonomous Vehicle Project

- Collaborated with a team of 4 in a 2-day engineering design competition to solve real-world problems in the engineering field
- Involved in: Pitching Ideas, Explaining Concepts, SOLIDWORKS modelling, 3D printing and oral Presentation

ABOUT ME