# LARA ABU ZAINEH

|Lara.zaineh12@gmail.com
(226)-582-9325|

## EDUCATION

**Bachelor of Engineering Science*; 3rd year Chemical Engineering*** **Western University**
**Awards & Honors:** Four Year Continuing Entrance Admissions Scholarship (95% high school average). **London, ON**

## RELEVANT EXPERIENCE

**Continuous Improvement Engineering Intern** **Woodstock, ON**
**SAF-Holland Inc.** **May 2023-May 2024**

- Led multiple safety projects to mitigate the risk of rust, reducing recordable injuries by 33.3% effectively preventing potential hazardous incidents
- Spearheaded lubricant oil cross-compatibility project for new machine, resulting in operating cost reduction of approximately $3000 per year in new oil expenses
- Developed training document and provided instruction to three operators in welding inspection, resulting in all candidates passing exam and achieving inspector certification
- Led rust prevention program employing chemical principles to minimize the likelihood of operators working with rusty parts, concurrently saving millions of dollars in costs and waste
- Collaborated with management to implement barcode system to reduce error and unproductive time intervals
- Simultaneously completed multiple cross-departmental projects well ahead of deadlines, consistently impressing managers with rapid and efficient approach, driven by effective time-management, organization, constant communication and self-motivation

**Project: Thermodynamic Analysis of Transportation of LNG** **London, ON**
**Western University** **March 2022**

- Employed reiterative MATLAB tools and Peng-Robinson equation to design LNG storage tank under cryogenic conditions for optimal storage and transportation from terminal to processing plant
- Independently led safety measures through implementing gas leak detection system, high-level alarm, and emergency shutdown system, while simultaneously selecting optimal insulation materials within budget constraints
- Simulated various pressure and temperature conditions, analyzing optimal pressure for operation, concurrently determining ideal volume for project efficiency
- Adhered to Canadian safety and design standards to outline preliminary design for liquefied natural gas vessel
- Collaborated with four classmates to explore innovative project approaches and consider alternative design options through collective research and brainstorming sessions

**Project: Heat Exchanger Design and Analysis** **London, ON**
**Western University** **Nov 2022-Dec 2022**

- Collaborated in team of 5 to select most optimized heat exchanger with maximum heat transfer, critical thinking skills of which parameters to adjust to generate 5 distinct designs
- Multi-tasked with classmate between literature research section and design of mathematical model using Excel, communicated constantly to complete project on time all while managing 4 other projects due at start of final exam period
- Led future recommendations section to optimize design and improve process reported in word document after independent research

**Chem E-Car Club** **London, ON**
**Western University** **Sept 2021-May 2023**

- Coordinated project in large group, was tasked with the design of stopping mechanism that depended on very specific and highly calibrated chemical reaction
- Submitted cost analysis reports to executives on the chemicals and instruments used to ensure budgeting demands are met
- Motivated team members and set up meetings with advice to manage time in club with full-course load, promoting constant reflection and self-development

**Amusement Host** **London, ON**
**The Rec Room** **Oct 2021-May 2022**

- Collaborated within a team to prioritize customer satisfaction and foster loyalty, resolving customer concerns through effective interpersonal skills and maintaining calm communication in high-tension situations
- Handled pressure from many sources simultaneously, operated with speed and efficiency in a dynamic and fast-paced environment, particularly during peak hours

## PUBLICATIONS

**Health Science Research Assistant at Olympika** **Western University**

**International Journal of Olympic Studies** **March 2021**

- Handled pressure of working without professor guidance due to nature of unprecedented time with limited research conducted on how COVID-19 affected athletes
- Effectively dealt with ambiguity and used discernment to determine relevant pieces of information for research through communication with team members

## TECHNICAL AND OTHER SKILLS

**Computer Languages:** Python, Java, MATLAB.
**Applications:** AutoCAD, Onshape, Simulink & LabVIEW simulations, Microsoft Word, Excel & PowerPoint, ASPEN HYSYS.
**Languages**: Fluent in English, professionally fluent in French.