Abdulmiuzz Alsarwi

|5197013032| |aalsarwi@uwo.ca|

Address	LinkedIn	Portfolio
London, Ontario	www.linkedin.com/in/abdulmuizzalsarwi	https://abdulmuizzalsarwi.netlify.app/

EDUCATION

Western University - London, ON Sept 2023 – Present
Third year Mechanical Engineering Student

ENGINEERING EXPERIENCE

Western University (Physics/Astronomy) - London, ON May 2024 - Aug 2024
Research Study Assistant

- Assembled a high-performance workstation and optimized the MRI preprocessing pipeline using **MATLAB**, reducing data processing time by **20%**.
- Organized and deployed an **SQL** database and ETL scripts to eliminate and standardize the data entry within MRI imaging, increasing its reading accuracy by **12%.**
- Developed hardware test procedures for the MRI control subsystem, producing test checklists and reduced system downtime by **5%**.

Formula 1 Team (Western University) – London, ON Sept 2024 – Present
Lead Mechanical Design

- Contributed to redesigning its aerodynamic body component using **AutoCAD** and validated changes with **CFD**, producing a **7%** improvement in **lap time** compared to prior configuration.
- Implemented the design changes in the updated **AutoCad** drawing, utilizing markup tools to ensure accuracy and thorough labeling.

TECHNICAL PROJECTS

Human-Powered Washing Machine| AutoCAD, SolidWorks

- Developed a reliable electrical free laundry system that utilizes pedal-powered drivetrain that can clean up to **5kg** worth of unclean clothing while promoting off grid and sustainable living
- Created 3D models in **SolidWorks**, combining ergonomic and anthropometric data to improve the drum, frame, and seat for **50th** percentile users.
- Completed load, torque, and fatigue calculations for shafts and transmission components, resulting in a safety factor of **2**.

Elbow Motion| SolidWorks

- Modeled an elbow motion design to mimic its supination and pronation in **SolidWorks**, adding constraints and animations to visualize range of motion for biomechanics analysis.
- Incorporated mechanical constraints and realistic joint movements in the design by utilizing accurate materials to simulate elbow articulation, enhancing the design's accuracy by **25%.**

FilterBuddy| SolidWorks

- Designed an attachable, adjustable filter device using **SolidWorks**, that fits by the circumference of the bottle to cater different types of bottles with one aim of tackling the issue with unfiltered.
- Implemented design changes to the model with different features through labeling and assembly to ensure its system is effective, selecting corrosion resistant materials with aim to eliminate **90**% of all contaminants while it still being at a minimal size to carry around.

TECHNICAL SKILLS

- Tools: AutoCAD, SolidWorks, Fusion 360, Java, Python, LabVIEW, Arduino, MATLAB, SQL
- Microsoft Office Suite, including Word, Excel VBA, and PowerPoint.
- Problem-solving, Customer service, Team Collaboration, Time Management, Adaptability