Abdulmiuzz Alsarwi

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

EDUCATION

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

ENGINEERING EXPERIENCE

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

- Using a high-performance PC with software to interpret pulse sequences and MRI imaging reduced data processing time by 20% through assembly.
- Organized data entry within MRI imaging with SQL which led to an increase in diagnostic precision by 12%.
- Completed a control system hardware testing which decreased downtime and troubleshooting by 5%.

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

- Contributed to redesigning the aerodynamic of Formula 1 race car using AutoCad, optimizing the air flow and enhance the car's overall performance by 7%.
- Implemented the design changes in the updated AutoCad drawing for Western Formula 1, 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 with implementing features like assemblies and animation for an interactive design 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

- Constructed and modeled an attachable filter that can be adjusted by the circumference of the bottle to cater different types of bottles with one aim of tackling the issue with unfiltered water that contains harmful contaminants.
- Implemented design changes to the model with different features through labeling and assembly to ensure its system is effective, eliminating 99% of all contaminants while it still being at a minimal size to carry around
- Selected durable and corrosion resistant materials like 100-micron mesh as the primary filtration material, balancing fine contaminant removal with structural strength and a long term usability.

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