Jawad Adisa

ENGINEER-IN-TRAINING

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I am a recent sustainable design engineering graduate from UPEI with experience in project management, automation, and prototyping. I have a strong foundation in mechanics, electronics, and engineering programming applications like SolidWorks, AutoCAD, MATLAB, and LabVIEW. Enthusiastic and passionate about problem-solving, eager to learn and apply my knowledge and skills to real-world projects.

EXPERIENCE

4TH YEAR DESIGN CLINIC SEP 2022 – APR 2023
LABORATORY FUME HOOD
Torvan Medical, Ontario

- Teamwork and communication: Worked effectively with a team to design and prototype a laboratory fume hood with an electromechanical sash.
- Project management: Managed project deliverables, planned and organized the design process, and prepared bill of materials for procurement activities. Evaluated design stage success and finalized reports.
- CAD modeling: Created a modular 3D CAD assembly using SolidWorks to meet design requirements and features.
- Prototyping: Led prototyping activities, including woodwork and electrical component wiring, to create a functional fume hood prototype.
- Ideation and analysis: Led ideation and analysis stages and conducting testing to ensure optimal performance.
- Electronics: Prepared electrical schematics for the design. Wired the electronic components on the prototype to ensure safety, electro-mechanic motion of the sash, and proper working of the prototype.
- Research: Conducted research to find the appropriate sash mechanism for the fume hood.
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3RD YEAR DESIGN CLINIC SEP 2021 – APR 2022
WASTEWATER FILTRATION SYSTEM
Cavendish Farms, PEI

- Teamwork and Communication – Worked in a team to implement a self-cleaning system to filter wastewater in a biogas facility.
- Project management – Managed the project through basecamp and in-person activities. Set-up meetings and co-ordinated design activities. Prepared and updated the Gantt chart, hour log, and bill of materials. Verified deliverables and design stages to ensure smooth running of the project.
- P&ID – Prepared a piping and instrumentation diagram using AutoCAD to show the flow of wastewater to the filtration device in the facility.
- PLC programming – Verified the operating principle of the filtration device using ladder logic to show the PLC control of the device.
- Research – Conducted research to compare different systems and devices for filtration of water.
- Verified the methods and filtration device by coordinating a proof of concept to ensure its effectiveness in the facility.

2ND YEAR DESIGN CLINIC SEP 2020 – APR 2021
SEPARATION OF OYSTER CLUSTERS
Atlantic AquaFarms, PEI

- Teamwork and Communication – Worked in a team to conceptualize and engineer a design to separate oyster clusters in a safer and more efficient way.
- Project management – Prepared bill of materials, managed and organized basecamp activities.
- Design – Sketched the preliminary design, and prepared 3D CAD models of the design.
- Led the testing and proof of concept phases of the design to verify the decomposition of oyster clusters in acetic acid. Also led in the testing of the prototype design that agitates the oysters to separate the clusters.
- Research – Conducted research to understand the chemical composition of oyster clusters and found a chemical that could soften the bonds without affecting the oyster shells.

EDUCATION

BACHELOR OF ENGINEERING, SUSTAINABLE DESIGN ENGINEERING **MAY 2023**
MECHATRONICS FOCUS
University of Prince Edward Island, **Charlottetown, PE**.

PERSONAL COURSE PROJECTS

- **Computational Methods** OCT 2022 – DEC 2022
  Wrote a MATLAB code to predict future sea level rise based on melted ice from glaciers. Utilized mathematical concepts like interpolation, and Fast Fourier Transforms for signal processing and noise filtration.

- **Mechatronics System Integration** JAN 2022 – APR 2022
  Designed a SCADA and HMI using LabVIEW for a PLC controlled plastic and metal waste sorting station. Wrote a PLC ladder logic for a conveyor belt system, parking lot, and traffic light.

- **Mechatronics** SEP 2021 – DEC 2021
  Designed and programmed an autonomous obstacle avoiding robot using Arduino and distance sensors. Calibrated and integrated the parts and components to work together. Put the components together by wiring and soldering of wires.

SKILLS

- Communication
- Teamwork
- PLC Programming and ladder logic
- 3D modeling with SolidWorks and AutoCAD
- LabVIEW
- Research
- Project management
- MATLAB and Arduino
- Creativity
- Problem Solving and Analysis
- Prototyping and Testing
- Hand sketching
- Technical Writing and knowledge of writing tools