Manaf Albarari

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Objective Statement

Engineering student at the University of Prince Edward Island with a passion for sustainable design and innovation. Proven leadership in project development and experience in practical engineering solutions. Seeking to leverage my experience in design, analysis, and project management in a professional engineering role.

Education

University of Prince Edward Island

Bachelor of Sustainable Design Engineering, Minor in Philosophy and Economics | Expected December 2025. Relevant Coursework: Advanced Thermodynamics, Renewable Energy Systems, Computer-Aided Design and Simulation, Electrical Circuits and Power Systems

Projects

Automated Bridge Load Mechanism | Engineers PEI Association

Project Leader | September 2023 – Present

- Led the Automated Bridge Load Mechanism project, applying Arduino coding to innovate bridge safety automation, ensuring efficient load management.
- Utilized SolidWorks and AutoCAD for both prototype creation and final design execution, integrating advanced design methodologies for optimal functionality.
- Employed precision machining techniques to fabricate specialized components, enhancing the mechanism's reliability and performance.
- Implemented Microsoft Project for comprehensive work breakdown structure management, aligning team efforts with project timelines and objectives.
- Conducted material and component analysis using ANSYS Granta Edupack, prioritizing environmental sustainability in the selection process.

Patented Raccoon-Proof Waste Bin Design | Parks Canada Collaboration

Project Leader | January 2023 – May 2023

- Led the design and development of a patented raccoon-proof waste bin in collaboration with Parks Canada, significantly reducing wildlife interference in park areas.
- Managed cross-functional teams through the design, testing, and implementation phases, ensuring the project adhered to environmental guidelines and deadlines.
- Innovated unique locking mechanisms to deter raccoon access while maintaining user accessibility, utilizing iterative design processes for optimization.
- Coordinated with Parks Canada for field testing, gathering and incorporating feedback to enhance the bin's effectiveness and user experience.
- Achieved a sustainable design that balanced wildlife protection with public convenience, contributing to cleaner and safer park environments.

Work Experience

Machine Operator | Island Construction Ltd

June 2023 – September 2023

- Operated a variety of heavy machinery for construction projects, ensuring timely and precise completion of tasks in accordance with safety standards.
- Conducted daily maintenance checks and minor repairs on equipment to maintain optimal performance and minimize downtime.

- Collaborated closely with the construction team to plan and execute project phases, contributing to efficient workflows and project success.
- Adhered to strict safety protocols and guidelines to prevent accidents and ensure the well-being of all team members on site.

Machine Operator | Plats Du Chef

May 2022 - August 2022

- Operated food production machinery at Plats Du Chef, maintaining high standards of quality and efficiency in a fast-paced environment.
- Performed regular maintenance and troubleshooting to ensure continuous operation and minimize production downtime.
- Adhered to stringent health and safety protocols, contributing to a safe and hygienic work environment for food production.
- Collaborated with the production team to meet daily targets and deadlines, optimizing workflow and output.

Residence Life Advisor | University of Prince Edward Island

September 2021 - May 2022

- Led educational and social programs to boost student engagement and well-being; offered peer support and conflict resolution.
- Collaborated on safety and well-being initiatives, enhancing resident life.
- Developed a peer mentorship program, enhancing student retention and engagement.

Awards

FSDE Award for Sustainability

May 2023

• Received the FSDE and Parks Canada Award for Sustainability in May 2023, recognizing contributions to environmental sustainability initiatives.

Skills

- CAD Tools: completed 200+ projects using SolidWorks, AutoCAD
- Programming: MATLAB
- Knowledgeable in electric vehicle technology and energy storage systems
- Automation and control systems
- Manufacturing processes and lean principles
- Data analysis and technical reporting
- Project management and Agile methodologies

Volunteer Experience

International student representative

- Represented and advocated for international students, enhancing campus inclusivity and support.
- Led orientation and mentorship, improving international students' academic and social integration.

Summer Camp Volunteer

- Led outdoor and educational activities, fostering teamwork and environmental awareness.
- Supported camp operations, ensuring a safe and engaging experience for all.