

Kareem Zayed

Phone: +1 (902) 314-9941 / +201006617680 | Email: Kareemmkz913@gmail.com | LinkedIn [in](https://www.linkedin.com/in/KareemZayed): [Kareem Zayed](https://www.linkedin.com/in/KareemZayed)

Professional Summary

Motivated Sustainable Design Engineering graduate with hands-on mechanical experience through academic projects and industry internships. Skilled in designing, prototyping, and testing mechanical systems, with experience working directly with clients and managing engineering projects. Currently serving as an Engineering Teaching Assistant, supervising and project managing undergraduate projects while delivering control systems labs and providing technical guidance in design, modeling, and troubleshooting. Strong in problem-solving, teamwork, project coordination, and system design, with Dean's Honor List recognition.

Education

Bachelor of Science, Sustainable Design Engineering, University of Prince Edward Island, Canada

Sep 2020 – May 2025

- **Major:** Mechatronics and Sustainability
- **GPA:** 3.7 | First Class standing and Dean's Honors List recognition

Certifications

- **LEED Green Associate (LEED GA v5)** — U.S. Green Building Council (USGBC), 2026

Core Skills & Tools

- **AutoCAD** – 2D layouts, HVAC, fire protection design, and electrical layouts
- **SolidWorks** – 3D modeling, CAD design, flow simulation, and prototyping
- **MATLAB & Simulink** – Data analysis, system modeling, and control simulations
- **PLC & Industrial Automation** – TIA Portal programming, PLC logic development HMI design, SCADA integration using Ignition
- **Arduino** – Programming, code development, and system testing across various applications
- **AutoCAD MEP** – Ventilation and plumbing integration within 3D layouts
- **MS Office Suite** – Professional documentation, data analysis, and technical reporting
- **Soft Skills:** Teamwork, Leadership, Problem-solving, Adaptability, Communication, Flexible, Project coordination.

Professional Experience

Teaching Assistant, University of Prince Edward Island

Jan 2026 – Present

- Supervised and project managed undergraduate engineering projects, ensuring alignment with design requirements, timelines, and performance criteria.
- Guided students in troubleshooting, system design, and modeling, strengthening analytical and problem-solving skills.
- Delivered control systems labs and tutorials, emphasizing system modeling, analysis, and practical implementation.
- Collaborated with faculty on lab development and assessments while maintaining a safe, compliant, and efficient lab environment.
- Applied engineering standards and documentation practices, including technical reporting, data analysis, and validation of experimental results.
- Developed and refined experimental procedures and test setups to support system validation and performance evaluation.

Maintenance Engineering Intern, Halliburton

July 2023 – Sep 2023

- Conducted preventive maintenance and repairs on 5+ machines, ensuring optimal performance and operational uptime.
- Gained hands-on experience in machine servicing, hydraulic systems, and oilfield equipment functionality.
- Studied the oil extraction and drilling process, understanding system operations from rig site to maintenance workflow.
- Assisted in mechanical repair operations, diagnosing equipment malfunctions and restoring operational reliability.

Manufacturing Engineering Intern, Rajamec

May 2023 – July 2023

- Analyzed the gas stove manufacturing process, including component assembly, spark plug production, and thermal systems.
- Assisted in assembly line modifications and workflow optimization, improving product uniformity and equipment reliability.
- Collaborated with engineers to convert 2D technical drawings into 3D SolidWorks models enhancing design accuracy.
- Supported Quality Assurance and Control involving inspection, dimensional verification, and process compliance assessments.

Academic Projects Experience

Secondary Authentication System, Bluefield Seeding Solutions

Sep 2024 – May 2025

- Designed and prototyped a load cell-based authentication system to improve seed detection accuracy by 95%.
- Integrated load-cell sensors for real-time monitoring and data validation to enhance system reliability.
- Ensured system design and testing met client specifications and aligned with sustainability objectives.

Tennis Ball Shooter Project, Sportshow

Sep 2023 – May 2024

- Designed a motorized ball launcher featuring variable speed, trajectory control, and optimized performance.
- Applied mechanical, electrical, and control system principles to achieve precision and consistency in operation.
- Modeled, refined, and validated the design using SolidWorks simulations and iterative testing.

3D Filament Dryer Project, 3D Hub

Sep 2022 – May 2023

- Engineered a controlled-environment dryer with automated temperature and humidity regulation.
- Integrated sensors and feedback control systems to maintain consistent filament quality.
- Created technical schematics and documentation to support system reproducibility and scalability.