

Ahmad Charafdin

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Location: Beirut, Lebanon

Motivated Mechanical Engineering student with a strong foundation in thermal systems, design, and fluid mechanics. Equipped with hands-on experience in academic and industrial projects, team leadership, and technical problem-solving. Seeking to contribute to innovative engineering solutions within a dynamic team environment.

Experience

Hydrotech Lebanon (Water & Wastewater Treatment Systems)– Mechanical Engineer May 2025-Aug 2025

Designed and developed mechanical systems for water and wastewater filtration plants, including piping layouts, pump selections, and support structures. Oversaw installation and commissioning of filtration systems (RO) for municipal, industrial, and commercial applications. Coordinated with process, electrical, and civil teams to deliver complete turnkey filtration systems.

Maliks – Manager Assistant January 2023 – April 2025

Assisted in daily operational management and logistics, project coordination

Spinneys – Personal Finance Management & Merchandising Supervisor March 2021 – September 2022

Led a team in implementing promotions and pricing strategies. Provided coaching and supervision to improve team productivity.

Projects:

Evaluating the Impact of Thermochromic Windows on Smart Building Performance. Designed and tested a prototype integrating thermochromic windows for energy-efficient buildings. Conducted theoretical and experimental cooling load analysis, showing 16.5% reduction in cooling demand. Performed U-value and R-value calculations for Lebanese concrete walls vs. plywood and glazing systems. Assessed economic, environmental, and sustainability impacts (ROI: 3.83 years; CO₂ reduction: 726 kg/year).

Education

Lebanese International University (LIU)

Bachelor of Science in Mechanical Engineering (2022 – 2025)

Masters of Science in Mechanical Engineering (Current)

Technical Skills

Software: SolidWorks (2D, 3D, animation), AutoCAD, LTSpice, Microsoft Office

Programming: MATLAB, JAVA

Engineering: Thermodynamics, HVAC fundamentals, CAD modeling

Soft Skills

Strong project management and teamwork skills. Excellent problem-solving and analytical thinking. Effective time management and scheduling ability