# Mostafa El Badawi El Najjar

MEP Engineer & BIM Specialist

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## **OBJECTIVE**

I am a senior Mechanical Engineering student at LAU with hands-on experience in MEP design, Revit, HAP, and HVAC systems through certified training by EEC and AME. Skilled in BIM, sustainable engineering with a focus on optimizing building performance. Knowledgeable in international plumbing codes and ASHRAE standards for HVAC design, ensuring compliance with global engineering practices.

## **EDUCATION**

2022-Present Lebanese American University
Senior Mechanical Engineering student

### **EXPERIENCE**

05/2025 – Present	MEP Designer ( Part-Time
05/2025 – Present	MEP Designer ( Part-Time

**EEC** 

- Designed complete HVAC systems (chillers, VRV) using HAP and Revit on large-scale commercial and residential projects.
- Developed advanced Revit families and mechanical system models up to LOD 450.
- Participated in design coordination for ducting, chilled water piping, and ventilation layouts.

## 02/2025 – Present LawMate Co-Founder

Lebanese American University

- Co-founded LawMate, an Al-powered legal assistant to support research and case management.
- Led system design and integration in collaboration with the School of Engineering

## 12/2024 – 02/2025 Plumbing Designer Intern

Associated Mechanical Engineers

- Performed complete plumbing system designs for high-rise buildings including water supply, drainage, and vent piping.
- Sized pumps and storage tanks and designed solar water heating systems.
- Utilized Revit and AutoCAD and applied IPC & UPC.

## PROJECTS (CHECK MY PORTFOLIO)

#### **HVAC Design**

Performed detailed cooling load calculations using HAP software for various projects with EEC in Saudi Arabia, including office buildings, villas, and hospitals.

#### LawMate Ai

Co-founded and developed LawMate, a web-based AI platform. Designed to support lawyers in Lebanon by streamlining legal research, automating document analysis, and enhancing access to legal databases.

#### **Revit Family Design**

Applied Revit Family design in real-time projects involving FCUs, AHUs, hangers, grilles, diffusers, and various HVAC, plumbing, duct, flow, and electrical elements.

## **Plumbing Design**

Conducted pipe sizing and drainage projects at AEE for buildings in Saudi Arabia, including precise pump selection through detailed hydraulic calculations.

## **Housing System (Texas A&M Competition)**

Engineered a sustainable modular housing system from recycled materials for the Texas A&M competition, optimizing cost, durability, and efficiency.

## **CERTIFICATES**

<u>Revit Family Design</u> — Autodesk <u>HVAC Design</u> — Autodesk

<u>Plumbing Design</u> — AME <u>Invent for the planet 2025</u> — Texas A&M university

<u>Mastering Solar Energy</u> — Earth Technologies entrepreneurship skills — Beirut Arab University

## **SKILLS**

Technical skills: BIM, Pipe Sizing, HVAC Design, Plumbing Design

Softwares: Revit, AutoCAD, SolidWorks, HAP, MS Office, LATS-HVAC, MATLAB

Soft-Skills: Team leadership, Project Management, Communication, Problem solving, entrepreneurship, organization

## **ACTIVITIES**

ASHRAE Club, Member	2024 – present	LAU Activities, Events Organizer	2022 – present
Singing, Tutor	2020 – present	LAU Seekers Club, President	2022 – 2025
AEE Club, Member	2023 – 2024	Iman Scout, Scout Leader	2015 – 2022

## **LANGUAGES**

Arabic (C2) | English (C1) | French (B1)