

Mohamed Bahlak

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Registered Engineer, Order of Engineers and Architects – Beirut

PERSONAL SUMMARY

A passionate engineer with strong educational background in Mechanical, Renewable energy and Environment engineering. Adaptable and results-driven professional with a proven ability to learn quickly, solve complex problems and thrive under pressure. Detail oriented, a natural perfectionist known for delivering high-quality work with accuracy and consistency. Eager to bring these strengths to a challenging and growth-focused role.

SKILLS

- **Energy Modeling & Design:** PVsyst, HOMER Pro, SAM, AutoCAD, SolidWorks
- **Programming & Analysis:** MATLAB, MS Excel (incl. VBA), basic Java
- **Soft Skills:** Problem-solving, critical thinking, adaptability, cross-functional teamwork

LANGUAGES

Arabic (Native), **English** (Advanced), **French** (Intermediate)

EXPERIENCE

Site Engineer Intern

American Cold Industry SARL (ACI), Beirut, Lebanon

July – September 2019

- Led HVAC ducting installation team, ensuring compliance with safety protocols
- Troubleshoot technical issues to avoid delays and improve site productivity
- Collaborated with senior engineers on process improvement initiatives

EDUCATION

MEng in Renewable Energy and Environment Engineering — Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

Oct 2021 – July 2025 | GPA: 3.91/4.0

- **Concentration:** Renewable Energy Resources
- **Key Courses:** Wind Energy, Solar Energy, Environmental Impact Assessments, Life Cycle Analysis
- **Final Year Project:** *Design and techno-economic simulation of hybrid off-grid renewable energy systems*,
Tools used: HOMER Pro, PVsyst, MATLAB, SAM, Excel

BEng in Mechanical Engineering — The International University of Beirut, Beirut, Lebanon

Sept 2017 – Sept 2021 | GPA: 3.55/4.0

- Relevant courses: Mechanics of Materials, Fluid Mechanics, Thermodynamics, Power Plants, and Turbomachinery
- Dean's Honor List: 2017–2020 (3 consecutive years)

PROJECTS

Academic Research Project — 2024

- Simulated hybrid **solar-wind systems** using **PVsyst**, **HOMER Pro**, and **SAM**
- Analyzed **LCOE**, energy yield, and financial performance across various configurations
- Compared the effect of different **meteorological databases** (NASA, NREL, PVGIS, Solcast, Solar Atlas and Wind Atlas) on performance simulation accuracy
- Delivered a comprehensive report recommending optimal configurations for isolated, off-grid applications

Residential Off-grid Solar System Design

Personal Project — 2021 & 2024

- Designed and implemented **two off-grid solar systems** for residential use
- Conducted energy demand assessment, system sizing, and battery integration
- Installed and tested systems with a focus on reliability, user safety, and efficiency
- Monitored system performance to validate design assumptions

CERTIFICATES

Elements of AI for Business — *MinnaLearn*, Sept 2025

REFERENCES

References Available upon request