

Ibrahim Merhej

Mechanical Engineer



Beirut Governorate, Lebanon



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Profile

I am a dedicated mechanical engineer with proficiency in 3D Computer-Aided Design (CAD), thermodynamics and energy, HVAC, Plumbing and Power Generation.

Education

Mechanical Engineering Degree – Design and Energy

2019 - 2024

The Lebanese University Faculty of Engineering II, Roumieh, Lebanon

Baccalaureate in General Science

2005-2019

Ecole Notre Dame des Anges, Badaro

Experience

Internship trainee at EXERGETICA

2024

- Coupled an open Rankine cycle with a solar concentrator to harness heat energy and produce work.
- Worked on pumps, turbines, condensers, and heat exchangers to enhance system efficiency.
- Modeled the system using REFPROP and MATLAB Simulink for accurate simulations and analysis.
- Conducted in-depth thermodynamic analysis and design calculations.
- Developed innovative solutions to optimize system performance and efficiency through complex analysis.

Internship trainee at AUDI Service Center

2022

- Gained hands-on experience with electrical and mechanical components of vehicles.
- Deepened understanding of car engine operations and integrated systems.
- Assisted in troubleshooting and in preventive and corrective maintenance to enhance performance.

Internship trainee at CATERPILLAR

2022

- Worked extensively on the assembly and disassembly of engines and their components.
- Gained in-depth knowledge of engine mechanics and complex systems through hands-on experience.
- Contributed to design modifications aimed at improving engine performance and efficiency.

Founder of an after-school Center

2023-present

- I founded an after-school center where I teach math and physics to high school students.
- I also provide lessons to engineering university students in courses such as calculus, mechanics, thermodynamics, fluids and other related subjects.

Skills

- 3D Computer-Aided Design (CAD)
- Computational Fluid Dynamics (CFD)
- SOLIDWORKS and AUTOCAD
- HVAC, heating and cooling
- Plumbing and Ventilation
- Automotive
- Machine Design
- Thermodynamics and Power Generation
- Solar and Renewable Energy

Other skills

- fluency in English, French and Arabic.
- Passionate, Hard worker and Ambitious.
- Leadership, Communication and Troubleshooting.