

Amir Tlais

Beirut, Lebanon | P: +961 71 197 355 | Email: amirtlais355@gmail.com

Profile Summary

I'm a recent mechanical engineering bachelor's degree graduate who is now working on a mechanical engineering master's degree. Gained hands-on experience in HVAC systems design and operation, along with practical expertise in operating machines such as lathes, CNC cutting, welding equipment, and others. Proficient in CAD software, thermodynamics, and precision machining techniques. Demonstrated ability to contribute to the design, analysis, and optimization of HVAC systems and mechanical processes. Recognized for careful attention to detail, good problem-solving abilities, and a proactive attitude toward engineering difficulties

Education

Lebanese International University

Beirut

Masters of Science in Mechanical Engineering

Expected June 2025

Cumulative GPA: 3.58/4.0

Relevant Coursework: Fluids Mechanics, Advanced Heat Transfer, Mechanical Vibration, Finite Element Analysis, Thermodynamics, Stress Analysis, Machine Design, Mechanical System

Lebanese International University

Beirut

Bachelor of Science in Mechanical Engineering

Oct 2020 – June 2023

Cumulative GPA: 3.73/4.0, With Distinction

Relevant Coursework: Fluids Mechanics, Heat Transfer, Mechanical Vibration, Mechanics of Material, Statics, Control Systems, Thermodynamics, Mechanical System, Industrial Electronics, Internal Combustion Engines

Al Rida High School

Beirut

Lebanese Baccalaureate in General Science

Sept 2018 – June 2019

Grade: 16.17/20

Work Experience

Al Moussawi Most Group

Beirut

Industrial Intern

June 2023 – Aug 2023

- Contributed to the design and assembly of steel structures, enhancing project efficiency and quality by 25%
- Operated CNC cutting and lathe machines
- Collaborated on welding projects 5+, ensuring structural integrity and compliance with safety standards
- Assisted in the development of innovative solutions for steel beam and pipe fabrication

Jihad Al Binaa Institution

Beirut

Mechanical Engineer Position

Dec 2024 – Feb 2025

- Inspecting and diagnosing mechanical malfunctions in various equipment such elevators, machinery and HVAC systems

AEE Lebanon

Beirut

Energy and HVAC Design Intern

July 2023 – Aug 2023

- Contributed to energy-efficient building designs, enhancing sustainability and reducing operational costs by 15%
- Assisted in HVAC system design, improving indoor air quality by 30% and energy efficiency by 20%

Projects

Structural Optimization of a 3D-Printed Prosthetic Leg: Stress Analysis and FEM Approach

Lebanese International University (Master Thesis Project part A)

2024-2025

- Conducted stress analysis and finite element method (FEM) simulations using ANSYS.
- Developed free body diagrams and applied FEM equations to evaluate forces, displacements, and stress distributions.
- Utilized 3D printing technology for cost-effective, customizable prosthetic solutions.
- Performed material selection and optimization for high strength, durability, and fatigue resistance

Elastomeric Base Isolation for Buildings Against Earthquakes

Lebanese International University (Senior Project)

June 2023

- Conducted vibrational and structural analysis, enhancing building safety and resilience against earthquakes by 15%
- Applied elastomeric materials, demonstrating innovative solutions in mechanical engineering for seismic protection

Animated Bobcat

Lebanese International University

May 2023

- Using SolidWorks software, the bobcat formed of 22 parts assembled with each other

Sumo Robot

Lebanese University

April 2019

- Awarded first place for design and programming, showcasing advanced problem-solving and technical skills
- Demonstrated expertise in robotics and automation, relevant to mechanical engineering innovation and efficiency

Skills

- SolidWorks

- AutoCAD
- Matlab
- Hap
- Lt Spice software
- Programing languages (java, C)
- Microsoft Office
- Project Management
- Communication
- Time management
- Work under high pressure

Certifications

Institute of Electrical and Electronics Engineers (IEEE)

2022

Robotics, Cloud Computing, Artificial Intelligence in Healthcare, Change Management through Emotional Intelligence

Zaka Academy

2022

Machine Learning

Languages

- **Arabic:** Native
- **English:** Fluent