Joe Saad

Mechanical Engineer — MEP, HVAC & Industrial Refrigeration

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PROFESSIONAL SUMMARY

Early-career mechanical engineer with practical experience across mechanical design, HVAC and MEP systems, industrial refrigeration and technical procurement. Currently in the Shop Drawing & Mechanical Design Department at Fox Cooling, contributing to the TCL industrial refrigeration project in Benin.

EXPERIENCE

Mechanical Engineer — Fox Cooling

Nov 2026 – Present

Shop Drawing & Mechanical Design Department · Lebanon · projects in West Africa

My current professional focus: mechanical design development and shop drawings for HVAC and MEP projects.

- Areas of work (team contribution): mechanical shop drawing development; HVAC and MEP layouts; mechanical system coordination; technical drawing interpretation; engineering documentation; mechanical equipment integration; mechanical design development; coordination with other engineering disciplines.

Junior Procurement Engineer — Fox Cooling

Feb – Oct 2026

Procurement · Lebanon · projects in West Africa

Technical procurement for HVAC and MEP equipment, where the engineering work was evaluating and selecting equipment against project requirements.

- Technical evaluation & selection: equipment datasheet evaluation; technical and commercial comparisons; preliminary pump selection and sizing; preliminary fan selection and sizing; HVAC equipment selection; technical compliance evaluation; technical submittals.
- Engineering support (team contribution): value engineering; Primavera P6 schedules, WBS structures and progress reports.
- Procurement & coordination: requests for quotations and purchase orders; supplier coordination and manufacturer communication; international procurement and freight coordination; coordination with project managers and engineering teams.

Procurement Engineer Trainee — Fox Cooling

One-month internship

Procurement · Lebanon · projects in West Africa

- Traineeship (team contribution): HVAC and MEP project coordination, supporting engineering and procurement activities; review of technical submittals, BOQs and supplier quotations; project documentation, reporting and site coordination.

Trainee — M.E.C.A. Contracting and Engineering

Jun – Aug 2024

MEP team · Beirut, Lebanon

- Design support (team contribution): design and implementation of mechanical systems for various projects, with the MEP team.
- Site work: site visits to assess project progress and solve problems with MEP installations.

Trainee — Caterpillar

Nov 2023 – Feb 2024

Maintenance · Beirut, Lebanon

- Maintenance (team contribution): preventive and corrective maintenance of heavy machinery; diagnostics and fault resolution to improve equipment reliability.
- Continuous improvement (team contribution): data analysis to optimize procedures and reduce downtime.

Mechanical Engineering Intern — Alghanim International

Summer 2023 · One month

Az-Zour Power Plant · Kuwait

- Exposure to industrial mechanical engineering; power generation systems; large-scale mechanical installations.

Mechanical Engineering Intern — Alghanim International

Summer 2023 · One month

Sabiya Power Plant · Operation & Maintenance · Kuwait

- Exposure to industrial equipment; operation and maintenance procedures; work alongside industrial engineering teams.

Private Tutor — Private tutoring

Jan 2021 – Present

Mathematics and engineering · Beirut, Lebanon

- Teaching: private lessons in analysis and algebra; engineering courses for engineering students; preparation of undergraduate students for official exams.

ENGINEERING PROJECTS

TCL Temperature-Controlled Logistics Facility — Fox Cooling

2026

Abomey-Calavi, Benin · Industrial Refrigeration & Hydraulic Engineering

Centralized industrial glycol refrigeration system. I have been involved in this project since February 2026 as part of the Fox Cooling team, contributing to engineering and design development, technical evaluation, equipment selection and supplier coordination.

MEP Engineering Toolbox — personal software project

v0.1.7 · active development

Browser-based engineering calculation toolbox (formerly Pipe Slope & MEP Calculator): 20 modules for hydraulics, HVAC, thermal, utilities and drainage slopes, French and American practice, documented methods and regression tests. joesaad.win/toolbox

SKILLS

Mechanical engineering	Mechanical design, Mechanical shop drawings, Equipment selection, Hydraulic systems, Fluid mechanics, Engineering calculations, Technical specifications, Mechanical system coordination
HVAC & MEP	HVAC systems, Industrial refrigeration, Chilled water systems, Glycol distribution systems, Hydronic systems, Pump selection, Fan selection, Mechanical building services, MEP coordination
Technical engineering	Technical comparisons, Equipment performance evaluation, Value engineering, Datasheet analysis, Technical submittals, Engineering documentation, Technical compliance
Project engineering	Primavera P6, Work breakdown structures, Technical procurement, Supplier coordination, Project documentation, International procurement coordination
Software — practical use	AutoCAD, Primavera P6, Microsoft Excel, Manufacturer selection software, AI-assisted engineering automation
Software — exposure	Carrier HAP, Plant 3D, SolidWorks, Inventor, Fusion 360, MATLAB / Simulink, EnergyPlus, Ductilator, Python · C++ · C# · Arduino

EDUCATION

Lebanese University — Faculty of Engineering

2020 – 2026

Mechanical Engineering — Energy & Environment · Lebanon

Final-year project: *Engineering Assessment and Design Verification of an Industrial Glycol Refrigeration System for a Temperature-Controlled Logistics Facility* (supervisor: Dr. Carine Habchi).

Saint Georges College

2005 – 2020

Lebanese Baccalaureate in General Science · Lebanon

TRAINING

- Pumping Systems Design, Applications & Product Solutions — Wilo Levant (workshop), Jun 2026
- Simulink Onramp — MathWorks Training Services (course), Sep 2025
- Ventilation, Smoke Control & Fan Selection — SODECA (technical training), Jun 2026

LANGUAGES

Arabic (native) · English (autonomous) · French (autonomous)

ACTIVITIES

- Vice President, Student Office — ULFG2, Lebanese University Faculty of Engineering, 2020 – 2024. Represented students and handled communication with the administration; led projects to improve student life, including academic and social events.
- Volunteer Librarian — Youth and Culture Centre (MJC), Zouk Mikael, Jul 2021 – Jul 2022. Volunteer at the municipality's public library.
- Clubs — Lebanese University. Former president of the astronomy club. Former board member of the ASME, Mechatronics and Public Relations clubs.