

Lara Al Hassanieh

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Professional Summary

I am a fresh Chemical Engineering graduate from AUB with a Minor in Business Administration. I am experienced in sustainability projects, process simulation, and research. Skilled in data-driven problem solving, process optimization, and leading cross-functional teams, with a track record of delivering impactful results.

Education

American University of Beirut – BE in Chemical Engineering, Minor in Business Administration

Grade: Distinction | Dean's Honor List: Fall, Spring '21-'22, Spring '23-'24, Fall '24-'25

Capstone Project: Conversion of Waste Cooking Oil to Hydrogen through APR of Glycerol

- Developed and optimized a process using Aspen Plus that produces 91.5% yield of pure hydrogen from waste cooking oil.
- Conducted Maximum Energy Recovery (MER) optimization, plant layout, process control strategies, and HAZOP analysis.
- Project demonstrated high economic feasibility (more than \$150M annual revenue, 9.24% ROI) while reducing waste and producing biodiesel and hydrogen.

Experience

Research Associate | Dun&Bradstreet

**Nov 2025-
Present**

- Worked with clients like Apple Inc., SABIC, ARAMCO, Lenovo, and Oracle.
- Completed GIRD training, including case investigation using Amaali, the Ministry of Commerce, SAGIA, Web search, and call verification
- Conducted GIRD for 500+ cases carrying out a thorough investigation (calls, emails, Google search) and delivered reports in a timely manner
- Strengthened skills in data verification, structured reporting, and B2B research workflows and trained two new members.

Business Development Associate| Bravomiles.com (Travel Tech Startup)

**Nov 2025-
Present**

- Conducted over 400 sales calls with 10% conversion rate.
- Tested and reviewed the company website, providing actionable insights and recommendations
- Prepared investor pitch decks and reports tracking progress
- Received training in procurement, sales, and CRM systems
- Identified and tracked 200+ qualified prospects, including potential investors, clients, and suppliers

Environmental Consulting Intern| ELARD

**Aug – Oct
2025**

- Conducted 15+ stakeholder interviews with ministries and business entities to support the development of Lebanon's National Agricultural Strategy in collaboration with FAO and FTI Consulting.
- Contributed to a UNDP-funded project on water and climate change assessments for industries in the Metn region.
- Called 41 municipalities requesting data on local industries; identified and engaged with 32+ industries.

Chemical Engineering Intern – Efficient Buildings & HVAC Design| Association of Energy Engineers

**Jul -Aug
2025**

- Modeled HVAC systems for a 64-space green building optimizing cooling across 26 systems.
- Attended masterclasses on sustainability, including water conservation, decarbonization, and sustainable cooling.

Operational Consulting Intern | Nucleus Ventures

**Mar-May
2025**

- Researched and pitched three AI tools to meet developer's needs, recommending the best options to improve efficiency and productivity.
- Conducted desk research for UNDP's CEDRO VI mission by finding investors, experts, and startups.
- Identified over 100 potential investors for a client in the human resource management industry.

Research Assistant| AUB MSFEA Lab

Project 1: CO₂ Capture through Static Mixing with Sodium Hydroxide in PFR

Optimized CO₂ capture efficiency in plug-flow reactors through lab testing of static mixing parameters.

**Jan– Jun
2025**

Project 2: CO₂ Methanation using Metal Organic Frameworks (MOFs)

Synthesized and characterize nickel-based catalysts to be used in carbon dioxide methanation.

Received training on the use of XRD, SEM, Centrifuge, and TGA/FTIR.

**Sep – Dec
2023**

Chemical Engineering Internship| Baalbaki Chemical Industries

**Jun – Aug
2024**

- Simulated process improvements in the production of aniline from benzene in Aspen HYSYS, achieving 12% cost reduction in raw materials.
- Procured TEG, DEG, and MEG from China, applying LEAN logistics practices.

Related Projects

INDE302: Ecobags Supply Chain Optimization: From Sourcing to Order Fulfillment

**Sep – Dec
2024**

- Optimizing workflow of sustainable company managing bag purchase, shipping, backorder, and retrieval costs.
- Developed a Python-based linear program to ensure that demand was met over the span of six months.
- Analysis of data revealed that adding one more warehouse was 2.37% more cost efficient.

CHEN470: Production of Benzene from Toluene

**Mar – May
2024**

- Created a simulation of the production of benzene from toluene on Aspen HYSYS.
- Conducted a feasibility study and determined the cost of production along with the profitability.

CHEN 451: PID Control Strategy of Jacketed Reactor

**Mar –
May 2023**

- Developed a robust control strategy for a jacketed reactor to maintain high conversion rate of desired product.
- Chose the best strategy which is IMC PID tuning with dynamic feedforward control as an ideal strategy.
- Utilized several software to reach the objective including MATLAB, Simulink, and LOOP-PRO

Extracurricular Activities

Beirut Model United Nations (BEYMUN) Conference

Member of Organizing Team| Logistics Team Leader - Managed logistics for BEYMUN 2025 with 650+ participants, leading 20 ushers and 20 security team members to ensure smooth operations and successful event execution. Oversaw on-ground event organization, including delegate registration, material distribution, and real-time troubleshooting.

**Sep'23 –
Jun'25**

Toastmasters: Speakers and leaders

Vice President of Education - Organized public speaking schedules, led four collaborations, won third place in regional public speaking contest.

**Sep'22-
Jun'25**

Skills

Technical Skills: Python, MATLAB, Aspen Plus, HYSYS, AutoCAD

Tools: MS Office (Excel, PowerPoint, Word, Project, Power BI), CRM (Oodoo, Zendesk, Trello), Figma, Canva, AI Tools (ChatGPT, Claude, Gemini)