Yara Layssi Stouhi

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EDUCATION

Lebanese American University (LAU) - Byblos, Lebanon **Sep. 2020 – May 2025**
BE in Petroleum Engineering

Lycée Abdel Kader - Beirut, Lebanon **Sep. 2005 – June 2020**
Scientific French Baccalaureate – Specialization in Physics and Chemistry

EXPERIENCE

Intern at UniGaz - Beirut, Lebanon **Sep. 2025 – Current**

- Rotation within the QHSE department, gaining knowledge of safety standards applied to gas terminals as well as quality and safety control of gas installations, complemented by site visits.
- Experience within the Installations department, learning the design of gas facilities (filling stations, residential installations, and restaurants), also accompanied by site visits.

Intern at UNITERMINALS S.A.L - Beirut, Lebanon **June 2024 – Aug. 2024**

- Learning about the import and storage of refined petroleum products
- Visiting a vessel on the Lebanese shore and learning about the unloading process
- Presenting a project on implementing a 'boom' system to increase the safety of the unloading process

Research Student: Renewable Energy Hub **Jan. 2024 – Dec 2024**

- Researching CO_2 methanation and carbon capture utilization and storage (CCUS) to develop decarbonization strategies aimed at achieving net-zero emissions.
- Exploring solutions for transforming CO_2 into synthetic natural gas, contributing to the advancement of green gases and sustainable energy systems with a specific focus on implementing these technologies in Lebanon to address electricity challenges and support the country's energy transition.
- Working on reactor design and configuration to increase the efficiency of the CO2 methanation process.

PROJECTS

CO_2 – Enhanced Gas Recovery in Marcellus Shale

- Simulating CO_2-assisted enhanced gas recovery on a real shale field with the MATLAB Reservoir Simulation Toolbox (MRST)
- Calibrating rock-fluid properties to match history and demonstrating higher ultimate recovery while permanently storing the injected CO_2, achieving a dual energy and environmental benefit

Reduction of Greenhouse Gas Emissions Through Carbon Capture and Storage

- Modeling different reactor configurations to optimize CO_2 conversion via methanation
- Improving CCUS process efficiency by minimizing energy input while maximizing methane yield

SKILLS

Computer skills: MS Word, Excel, PowerPoint, Prosper – Petroleum Experts[1], MATLAB[2], SOLIDWORKS[3], AspenPlus[4], C++, Polymath

1. Inflow and Outflow Modelling, Reservoir Simulation for Optimization, Nodal Analysis
2. Sensitivity Analysis on Oil and Gas Projects, Oil and Gas reservoir simulation for Enhanced Gas Recovery Project (MRST)
3. 3D Modeling of Petroleum Equipment
4. Modeling and Simulating a CO_2 methanation process

Languages: Fluent in English, French and Arabic

EXTRACURRICULAR ACTIVITIES

2024 LAU Innovation Spark Competition **Mar. 2024 – July 2024**
Vice President of the Society of Petroleum Engineers - LAU Chapter **Sep. 2024 – June 2025**
Member of the Student Council at the Lycée Abdel Kader **Sep. 2020 – June 2020**
Table Tennis Lebanese National Team