

Myly Fabre

+1-720-412-1226
mylyfabre@mines.edu

EDUCATION	Colorado School of Mines, Golden, CO	
	MS. Quantum Engineering	Dec. 2021
	<ul style="list-style-type: none">• Independent Studies: Simulating Ground State Energy of Diatomic Molecules on Cirq.	
	BS. Chemistry	May. 2020
	<ul style="list-style-type: none">• Minor: Computer Science.• Independent Studies: Preparation and Characterization of Carbon Quantum Dots.	
RESEARCH EXPERIENCES	Colorado School of Mines	Jan 2020 - Dec 2021
	Graduate Lab Assistant	
	<ul style="list-style-type: none">• Performed measurements and modeling of threshold slope deficiency of fiber laser oscillators.• Analyzed q-switched pulses of laser dynamics and built optical diagnostic tool for measurements on laser beams.• Occasionally helped students troubleshooting devices in the lab.	
	Kroll Institute of Extractive Metallurgy	Aug 2019 - Jan 2020
	Undergraduate Laboratory Assistant	
	<ul style="list-style-type: none">• Evaluated Bastenite ore using bench and micro-flotation methodologies.• Investigated ore properties and performed separations.• Performed analysis such as: XRF, contact angle analysis of the ore.	
	Nova Southeastern University	May 2018 - Aug 2018
	Intern	
	<ul style="list-style-type: none">• Assisted in the investigation of integrative modeling of Gulf-War disease.• Sorted data of Metabolic features to create database for future research.	
TEACHING EXPERIENCE	Colorado School of Mines	Aug 2021 - Dec 2021
	Teaching Assistant	
	<ul style="list-style-type: none">• Provided homework help online to students in Quantum Information (PHGN519).	
	The Coding School - Qubit x Qubit	Aug 2021 - May 2022
	Curriculum Developer	
	<ul style="list-style-type: none">• Developed educational contents for students not entirely familiar with Quantum Mechanics such as exercises to practice generation of randomness and search in an unordered list.	

ACADEMIC PROJECTS

- Performed simulation of diatomic molecules and evaluated their ground state energies on Sycamore, Cirq. Dec. 2021
- Reviewed recent literatures on quantum dot lasers, examined the physical properties of quantum dot lasers, and made market search on the practical usage of quantum dot lasers. Aug. 2021
- Developed a statistical adaptation of a forecast model for the peak of Ozone consisting of an exploration using machine learning methods. May. 2021
- Assisted in Optimization Research to develop linear and non-linear integer model for maximization uranium ore blend and minimize operation cost. March. 2020.
- Designed novel CuAlNi and NiTiHf alloys for future developments of Scoliosis Braces (won first place in the Carsmart Competition in Germany) . May. 2019

SKILLS SUMMARY

- **Coding:** Python, C++, Matlab, Qiskit, Cirq, pyQuil.
- **Other Software:** Zemax, ADF, Mathematica, Solidworks
- **Instrumentation:** UV-Vis, FTIR, NMR, SEM, TEM, ICP-AES/ICP-OES.