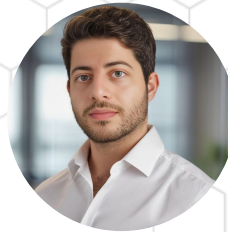


ELIAS AL ALAM

Environmental Engineer

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Swiss Driving License B June 30, 1997



EDUCATION

Master of Environmental Science

University of Lausanne, Lausanne, Switzerland

- 08/2022 - 07/2025 Switzerland
- Thesis: Investigated the impact of tributary inputs on sediment size distribution downstream of the Grande Dixence dam using high-resolution imagery and photogrammetry techniques.
 - Developed a supervised learning model achieving 97% accuracy for detecting oil spills from satellite images.

Bachelor of Mechanical Engineering

Lebanese American University, Byblos, Lebanon

- 08/2016 - 05/2021 Lebanon
- Designed and built a cost-effective tribometer to test wear and friction of RZeppa joints, reducing manufacturing costs to 1/40 of commercial alternatives.
 - Developed a smart home and automated irrigation system using LabVIEW, enhancing energy efficiency and reducing water consumption by 30%.

LANGUAGES

English

C2 (Proficient)



French

B2 (Upper Intermediate)



Arabic

C2 (Proficient)



German

A1 (Beginner)



PROFESSIONAL EXPERIENCE

Research Assistant (40%)

University of Lausanne, Lausanne, Switzerland

- 03/2023 - 09/2024
- Analyzed 12 years of glacial elevation data from 6 glaciers, identifying critical erosion points.
 - Collaborated with researchers from EPFL, ETH Zurich, and Eawag on a multidisciplinary glacier study.
 - Utilized QGIS, ArcGIS, and Python/XDEM to track changes in elevation and proglacial area.

Intern: Geophysical Field Engineer

Geo2x & GEOOL, Yverdon-les-Bains, Switzerland

- 08/2023 - 09/2023
- Deployed and monitored 5,000 seismic sensors across Switzerland for a national geothermal reservoir mapping project.
 - Managed sensor installation and data collection under challenging conditions.

Intern: Mechanical Engineering Technician

DEMCO Steel, Beirut, Lebanon

- 09/2019 - 06/2019
- Performed inspections and diagnostics on industrial machinery, increasing production efficiency by 25% and reducing downtime by 150 hours per month.

SKILLS

Geomatics & Modeling

QGIS, ArcGIS, Remote Sensing, Environmental Impact Assessment, 3D Modeling, Life Cycle Assessment, Sustainability Analysis, Sustainable Manufacturing, Python/XDEM for Geospatial Analysis, LiDAR Data Processing

Data Analysis & Processing

Statistical Analysis & Visualization, LiDAR Data Processing, Machine Learning & AI, Data Acquisition & Management, Environmental Analysis & Sustainability

Programming & Development

Python, R, Julia, Rust, HTML, CSS, JavaScript, MATLAB

Engineering & Simulation

Thermodynamics & Mechanics, Statics & Dynamics, Finite Element Analysis, Computational Fluid Dynamics, MATLAB, SolidWorks, AutoCAD, Ansys, Fluid Mechanics, Materials Science

SOCIAL MEDIA



Portfolio

<https://www.eliasalalam.dev>



LinkedIn

<https://www.linkedin.com/in/elias-al-alam/>



GitHub

<https://github.com/michmazbout>



Instagram

https://www.instagram.com/elias_el_alam/

REFERENCES

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