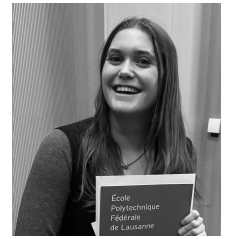


Salomé Lavine

📍 Route de la Plaine 5, CH-1022, Switzerland 🌐 Nationalities: French, Canadian

✉ salome@lavine.com 📞 +33 6 27 75 38 86 in Salomé Lavine



Seeking for a 6 months internship in Energy Science starting in Feb 2026

Education

EPFL - École Polytechnique Fédérale de Lausanne

2019 – on going

Master of Energy Science and Technology Engineering • Bachelor in Mechanical Engineering

- **Master Courses:** Micro-economics, Smart Grid Technologies, Applied Data Analysis, Power System Analysis, Life Cycle Assessment, Convex Optimization, Energy Conversion and Renewable Energy.
- **Bachelor Courses:** Control Systems, Vibrating Mechanics, Finite elements, Continuum mechanics, Heat and mass transfer, Compressible Fluid Dynamics, Solid Mechanics, Thermodynamics and energetics (I,II), Electromagnetism.

Lycée - Ecole Alsacienne - High School, Paris, Francemention Très Bien

2016 – 2019

Graduated Scientific Baccalauréat, specialization in physics, option ancient grec

Multiple international experiences : Humanitarian trip to Senegal ; Education exchange in New York and in San Francisco

Work experiences

Semester Projects

- At the DESL Lab (EPFL), modelled optimal bidding strategies for renewables and ESSs in 15-minute European electricity markets using Python and convex optimization. Fall 2025
- At the IPESE Lab (EPFL), [Impact Assessment](#) of 1 kWh batteries produced via co-extraction of lithium, Ca and Mg from European brines coupled with Carbon sequestration using a mineralization processes, using Brightway. Spring 2025

Teaching Assistant : Vibrating Mechanics, Algebra I, Calculus I, Thermodynamics

2022 – Present

Academic Projects

Advance Lab in electrical energy systems

Spring 2025

- Modelled and simulated an islanded electric grid in Simulink, combining synchronous and asynchronous machines with speed and voltage controllers, and conducted the experiment live in the lab.

Applied Data Analysis

Fall 2024

- Created a data story using Python, presented as a website, exploring the purpose of movie franchises and whether they primarily serve audience enjoyment or commercial profit — [Movie franchise Analysis](#)

Zero Net Grid for 2050 in Switzerland - Energy conversion

Fall 2024

- Energy optimizing and modelling two possible scenarios for a net-zero electricity grid in Switzerland by 2050, using Sankey diagram visualizations.

Product Development and engineering design

Fall 2023

- Team-designed and prototyped a metallic-object detecting gripper, involving electronics assembly, Arduino programming, CAD design, 3D printing, laser cutting.

Technical skills

Software: Python, Matlab, OpenLCA, Brightway, Arduino, Labview, CAD Catia, Simulink, Quarto, CFD.

Conceptual skills: laser cut, welding.

Languages: French: native, English: fluent, Italian: beginner.

References

André Hodder : Senior Lecturer and Researcher and Teaching Faculty member at EPFL, andre.hodder@epfl.ch

Associative Experiences

Artiphys Festival: Student organization for a music festival ; member then board committee (entertainment manager, V-P).

2022 – 2024

Polyquity: Student organization working towards gender equality in EPFL.

2022 - 2023

Coaching: Student organization for the first year integration ; Vice-President.

2020 - 2021

Interests

Piano (10 years), Classical Dance (15 years), Windsurfing.