




Auguste Baum

MSc graduate in Data Science at EPFL

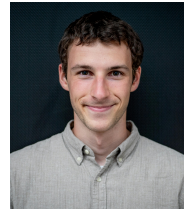
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Experience

- July 2023—
Nov. 2023 **Participant in Summer of Nix 2023**, *NixOS Foundation, Paris (remote)*
- Developed Nix package and module for open-source projects, of which Pretalx and Rosenpass.
 - Experienced mob programming, a low-latency work technique enabling fast skill improvement.
- Sept. 2022—
March 2023 **AI research intern**, *Swisscom Digital Lab, Lausanne*
- Conducted a research project on explainability of neural networks for big-data tabular datasets.
 - Developed reproducible research pipeline system using pytask.
- 2021—2022 **Co-founder & CTO**, *Resilio, Lausanne*
- Built the backend of Resilio Tech, an LCA tool for digital sobriety consultancy, in Django.
- 2020—2021 **Digital Sobriety consultant**, *Zero Emission Group, EPFL, Lausanne*
- Developed automatic PowerPoint pipeline in Python, speeding up the auditing process by 30%.
 - Co-authored reports on environmental impact of digital technology in multinational companies.

Education

- 2020—2023 **MSc Data Science**, *EPFL, Lausanne*
- ML, information security and big data methods. MSc thesis on Explainable AI.
- 2017—2020 **BSc Mathematics & Statistics and Physical Chemistry**, *UCL, London*
- First class Honours. Dissertation on Machine Learning for chemical property prediction.
- 2016—2017 **Classe préparatoire**, *Lycée Saint-Louis, Paris*
- Admitted in PC*. Foundations of Physics, Chemistry, Mathematics and Computer science.

Projects

- 2022—2023 **MSc project: “Path regularization for continuous counterfactual explanations”**, *Swisscom & EPFL, Lausanne*
- Developed a novel generative model regularization technique to produce high-quality explanations of deep neural network predictions. Supervised by Prof. Pascal Frossard and Dr Daniel Dobos.
- 2021 **Machine learning project: “Automatic detection of available area for rooftop solar panel installations”**, *EPFL, Lausanne*
- Built a neural network model to detect the empty space on rooftops in satellite images.
- 2020 **BSc project: “Machine Learning methods for Property Prediction”**, *UCL, London*
- Reviewed recent approaches to chemical property prediction with machine learning.

Languages

English and French (native), Spanish (B2), Japanese (basic)

Technical Skills

Functional programming Haskell, Scala

Object-oriented programming Python, Java

ML / Data	PyTorch
Software development	Git
Web development	HTML, CSS, Django

Big data	Spark
Scientific computing	Matlab, Mathematica, Sage
Miscellaneous	Nix, Vim