




# Auguste Baum

Software engineer, EPFL MSc  
graduate

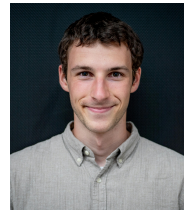
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## Experience

May 2024—**Software engineer, Probabl, Paris**

Now

- Develop Probabl's product, skore
- Participate in development of scikit-learn ecosystem

Dec. 2023—**Full-stack developer, Resilio, Paris (remote)**

March 2024

- Investigated performance issues in Resilio's infrastructure, improving request-response time by a factor of 2.
- Improved Resilio's testing infrastructure, cutting backend test time by a factor of 15.

July 2023—**Participant in Summer of Nix 2023, NixOS Foundation, Paris (remote)**

Nov. 2023

- Developed Nix package and module for open-source projects, of which Pretalx and Rosenpass.
- Discovered mob programming, a low-latency work technique enabling fast skill improvement.

Sept. 2022—**AI research intern, Swisscom Digital Lab, Lausanne**

March 2023

- Conducted research project on explainability of AI for big-data tabular datasets.
- Developed reproducible research pipeline 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.

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## 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.

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## Projects

2022—2023 **MSc project: "Path regularization for continuous counterfactual explanations", Swisscom & EPFL, Lausanne**

Developed an AI regularization technique to produce high-quality explanations of neural network predictions. Supervised by Prof. Pascal Frossard and Dr Daniel Dobos.

2022 **Semester project: “D-voting”**, *DEDIS lab, EPFL, Lausanne*

Contributed to d-voting, a blockchain-based electronic voting system.

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 (native), French (native), Spanish (B2), Japanese (basic).

## Technical Skills

**Functional programming** Haskell, Scala

**ML / Data** PyTorch

**Software development** Nix, Docker, Git, Vim, Rust, Go

**Web development** HTML, CSS, Django, React

**Object-oriented programming** Python, Java

**Big data** Spark

**Scientific computing** Matlab, Mathematica, Sage