


Auguste Baum

MSc graduate from EPFL: ML, InfoSec,
Software engineering

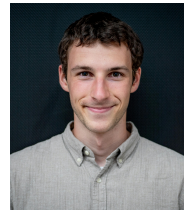
 augustebaum

 +33 6 42 89 41 43

 auguste.baum@pm.me

 augustebaum.github.io

 auguste-baum



Experience

- Dec. 2023—
Now **Full-stack developer**, *Resilio, Paris (remote)*
- 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—
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.
 - Discovered mob programming, a low-latency work technique enabling fast skill improvement.
- Sept. 2022—
March 2023 **AI research intern**, *Swisscom Digital Lab, Lausanne*
- 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.

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 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