

Ludovic Arnould

Ph.D. in Machine Learning

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Career-Education

- 2020-2023 **Ph.D. in Machine learning - Sorbonne Université, LPSM, Paris**
Working within the department of Statistics under the supervision of Claire Boyer and Erwan Scornet. My Ph.D was focused on the interactions between Neural Networks and Random Forests.
- 2019-2020 **M.S. in Learning and Algorithms (second year) - Sorbonne Université, Paris**
Bi-disciplinary M.S (maths and c.s.) focused on Machine Learning.
- C.S.: Deep Learning with Pytorch (Introduction to main NN architectures), Reinforcement Learning, Database (SQL)
- Maths: Statistical learning, Optimization algorithms, Stochastic algorithms, Geometric inference, Bayesian inference, Concentration inequalities.
- June-August 2019 **Internship - Computer Science Lab (LIP6), Sorbonne Université, Paris**
Application of DL and ML techniques to temporal data under the supervision of Nicolas Baskiotis.
- 2018-2019 **M.S. in Mathematics (first year) - Sorbonne Université, Paris**
Mathematical M.S. oriented towards Statistics, Probabilities and Functional analysis.
- July- September 2018 **Internship - Ktech Incubator, Shanghai**
Development of the technological services of a start-up incubator: organisation of events, establishment of partnerships, prospection of startups, ...
- January- March 2019 **Supply teacher in mathematics - French Highschool, Barcelona**
Teaching mathematics to highschool and middle school students.
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2020-2023

Teaching

Probability, Statistics and Linear Models - Sorbonne Université, ISUP
Students in last year of B.S in mathematics and first year of M.S. at ISUP.

Publications

- *Analyzing the tree-layer structure of Deep Forest*, Arnould, Boyer, Scornet, 2021, ICML
 - *Sparse tree-based initialization for neural networks*, Lutz, Arnould, Boyer, Scornet, 2022, ICLR
 - *Is interpolation benign for Random Forests ?*, Arnould, Boyer, Scornet, 2023, AISTATS
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Technical skills

C.S.: Deep learning with Python (Pytorch, VScode, Conda, Sklearn, ...).

Languages: - French (Native) - English (proficient) - Chinese (intermediate) - Swahili (beginner)

Hobbies and interests

I am very enthusiastic about science, mathematics and computer sciences in general. I read a lot about the new trends in Deep Learning, especially about LLMs.

Machines are not my only area of interest: I've been playing the piano for many years, and I am very interested in literature, art history and everything that is helpful to understand the society we live in from history and economics to politics and law studies.