

# Ludovic Arnould

## Ph.D. in Machine Learning

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### Career-Education

2020-2023	<b>Ph.D. in Machine learning - Sorbonne Université, LPSM, Paris</b> <i>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.</i>
2019-2020	<b>M.S. in Learning and Algorithms (second year) - Sorbonne Université, Paris</b> <i>Bi-disciplinary M.S (maths and c.s.) focused on Machine Learning.</i> - 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	<b>Internship - Computer Science Lab (LIP6), Sorbonne Université, Paris</b> <i>Application of DL and ML techniques to temporal data under the supervision of Nicolas Baskiotis.</i>
2018-2019	<b>M.S. in Mathematics (first year) - Sorbonne Université, Paris</b> <i>Mathematical M.S. oriented towards Statistics, Probabilities and Functional analysis.</i>
July- September 2018	<b>Internship - Ktech Incubator, Shanghai</b> <i>Development of the technological services of a start-up incubator: organisation of events, establishment of partnerships, prospection of startups, ...</i>
January- March 2019	<b>Supply teacher in mathematics - French Highschool, Barcelona</b> <i>Teaching mathematics to high school and middle school students.</i>

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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.*

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### 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, HuggingFace libraries, sklearn, VSCode, conda, ...)

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

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### 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 and NLP.

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.