



Pierre LAFORGUE

PhD Candidate in Machine Learning

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Education

- 2016 - Present** **Télécom Paris, Institut Polytechnique de Paris, PhD Candidate**
PhD Candidate in Machine Learning under the supervision of F. d'Alché-Buc and S. Cléménçon
Research Interests: Learning Theory, Robust Learning, Median-of-Means, Debiasing Methods
Kernel Methods, Structured Prediction, Representation Learning, Autoencoders
Publications: [1, 2, 3, 4], [Google Scholar](#), [Github](#)
- 2015 - 2016** **ENS Cachan, Université Paris Dauphine, Master's Degree MASH**
Theoretical Machine Learning courses (professor): Graphical Models (F. Bach, S. Lacoste-Julien, G. Obozinski), Statistical Learning (N. Vayatis), Convex Optimization Theory (A. d'Aspremont), Kernel Methods (J. Mairal, J.P. Vert), and applied courses: Data Marketing, Privacy and Fairness
- 2013 - 2016** **ENSAE Paris, Master's Degree in Data Science**
French Engineering School (Grande École) specialized in Statistics and Applied Mathematics
- 2010 - 2013** **Lycée Henri IV (Paris), Preparatory Classes MPSI/MP**
Undergraduate courses in Mathematics and Physics to prepare nationwide competitive exams

Professional Experience

- 2016 - Present** **Teaching Assistant at Télécom Paris**
- Teach practical sessions in Machine Learning and Applied Statistics
- Scientific advisor on Data Science projects for French companies (Safran, Bearing Point)
- 2016 (6 months)** **Research Intern at Télécom Paris**
- Within statistical team, under the supervision of S. Cléménçon
- Research topic: *Biased Stochastic Approximation of M-estimation Problems*
- 2015 (5 months)** **Statistical Assistant at Assistance Publique des Hôpitaux de Paris**
- Birth evolution forecasting in Île-de-France (Paris region)
- Optimization of the obstetrical care services in the region
- 2014 (4 months)** **Statistician at Affluences, mobile application startup**
- Queuing time forecasting for the Bibliothèque Beaubourg (Paris)
- Data visualization on occupancy rates

Skills & Languages

Computer Skills : Python (numpy, scikit-learn, pytorch, pandas), Latex, R
Languages : French (mother tongue), English (fluent), Spanish (intermediate)

Miscellaneous

Young Talent : Selected as a *Young Talent* in Big Data for the France-Netherlands *Erasmus Conference* (2017)
Startups : Involved in the development of the mobile application *Pollux Vote* (2016)
Associations : President of the ENSAE student *journal* (2014-2015)

Publications

- [1] **P. Laforgue***, A. Lambert*, L. Brogat-Motte and F. d'Alché-Buc (*equal contribution). *On the Dualization of Operator-Valued Kernel Machines*.
Under review, ArXiv preprint available at [arXiv:1910.04621](https://arxiv.org/abs/1910.04621), 2019.
- [2] **P. Laforgue** and S. Cléménçon. *Statistical Learning from Biased Training Samples*.
Under review, ArXiv preprint available at [arXiv:1906.12304](https://arxiv.org/abs/1906.12304), 2019.
- [3] **P. Laforgue**, S. Cléménçon and P. Bertail. *On Medians-of-(Randomized)-Pairwise Means*.
In Proceedings of ICML 2019.
- [4] **P. Laforgue**, S. Cléménçon and F. d'Alché-Buc. *Autoencoding any Data through Kernel Autoencoders*.
In Proceedings of AISTATS 2019.

Others (Research)

- Oral Communications :** ENBIS 2018, JDS 2018, CAp 2018, 2019, CODA 2019, Tōdai University of Tokyo 2019
- Summer Schools :** Participant to the Machine Learning Summer School (MLSS) 2019, South Africa
- Reviewing :** Official reviewer for the following conferences: NeurIPS 2019 (top reviewer)