

Rémi Le Priol

PhD Candidate

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Education

- 2018–2021 **Ph.D. Computer Science**, *Mila*, Université de Montréal.
Working on optimization, learning theory, structured prediction and generative modeling under the supervision of Professor Simon Lacoste-Julien.
- 2016–2017 **M.Sc. with honors in Maths and Machine Learning**, *ENS Cachan*.
M2 Mathématiques, Vision, Apprentissage (MVA) is France's top master for computer vision and machine learning. I learned about convex optimization, graphical models, kernel methods, bandits, the use of sparsity and differential geometry in image processing
- 2013–2017 **Engineering degree and M1 in Applied Maths**, *École polytechnique*.
Leading French school for high-level multidisciplinary scientific studies. I learned a lot about Physics (Quantum, Relativity, Statistical), Mathematics both pure (Complex Analysis, Measure theory, Galois theory) and applied (probabilities, statistics, Markov sequences, signal processing, learning theory), and Computer Science (algorithmics, fundamentals, randomization, data science).
- 2011–2013 **Preparatory Class**, *Lycée Hoche*, Versailles.
Two-year intensive programme in Mathematics, Physics and Informatics (MPI) in preparation for competitive exams to the French Grandes Écoles. Exam results : ranked 26th at ENS and 57th at Polytechnique.
- 2011 **Baccalauréat in Science with highest honors**, *Lycée Rabelais*, Meudon.

Publications and Pre-prints

- 2018 **Negative Momentum for Improved Game Dynamics**, *Gauthier Gidel, Reyhane Askari Hemmat, Mohammad Pezeshki, Gabriel Huang, RLP, Simon Lacoste-Julien, Ioannis Mitliagkas*, arXiv :1807.04740.
- 2018 **Adaptive Stochastic Dual Coordinate Ascent for Conditional Random Fields**, *RLP, A Piché and S Lacoste-Julien*, UAI 2018.
- 2017 **Massively parallel processing of whole genome sequence data : an in-depth performance study**, *A Roy, Y Diao, U Evani, A Abhyankar, C Howarth, RLP, T Bloom*, ACM SIGMOD 2017.

Research Experience

- 2017 **Optimization for Structured Prediction**, *Mila*, Université de Montréal, 8 months.
Research on the application of variance reduced optimization algorithms to structured prediction models, under the supervision of Professor Simon Lacoste-Julien.
- 2016 **Distributed Genome Sequencing**, *New York Genome Center*, 4 months.
In depth analysis of non-determinism in the first step of the sequencing pipeline. Use of Hadoop to implement a distributed version of the software detecting mutations. Supervision by Avinash Abhyankar, Toby Bloom and Yanlei Diao.

Other Experience

- Fall 2018 **Teaching Assistant**, *Université de Montréal*.
For the class Fundamentals of Machine Learning, with professors Ioannis Mitliagkas and Guillaume Rabusseau. Organize lab sessions and produce materials for the class.
- 2018 **Lab Reps**, *Mila*.
Represent student's interests within Mila.
- 2015 **Programmer**, *Crédit Agricole, Corporate and Investment Bank - Nonlinear Trading Desk*, Tokyo, 2 months.
Developped a software to simulate exotic product's price evolution against past events to help traders develop safer strategies.
- 2014 **Lieutenant**, *Special Military Service Regiment*, La Réunion Island, 3 months.
1) Supervised the military recruit trainings of thirty disadvantaged young adults, helping them to get ready for the job market. 2) Consulting missions to shape the future trainings offered by the Regiment.
- 2013 **Military Training**, *Écoles de Saint-Cyr*, Coëtquidan, 4 months.
Condensed training to become an officer in the French Ground Forces

Languages

- Natural French (native speaker) and English (fluent)
- Programming Python scientific stack and Pytorch.