Maxime Vono

Final year Ph.D. Candidate in Statistics with 3+ work experience. Available from August 2020.

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Experience

sep. 2018 - sep.2019 **Data Science Consultant**, *Intermarché*, Paris (France).
Consultancy missions for the Marketing and Strategy direction of Intermarché, an international supermarket chain.
Main missions: data strategy, sales/revenue forecasting, pricing strategy for promotional events.

apr. 2017 - sep. 2017 **Data scientist intern**, *Vekia*, Lille (France).
Machine learning techniques (random forests, sparse representations, time series, ...) applied to sales forecasting issues.
Worked for 4 companies working in the clothing, home improvement, food or health/beauty sector.
Managed a team of 3 people (1 data analyst and 2 software engineers).

2016 - 2017 **Research intern**, *Leroy Merlin France*, Lille (France).
Major: price optimisation in clearance and promotional events (dynamic programming, stochastic processes). The derived pricing strategy was tested on real sales transactions and has been proposed to some French brick-and-mortar stores.
Minor: daily revenue forecasting (time series). The derived revenue forecasting algorithm is currently used by the Leroy Merlin France Direction to anticipate potential losses with respect to their objectives.

sep. 2015 - mar. 2016 **Financial Auditor intern**, *EY*, Paris (France).
Analyzed financial statements of companies in biotech, charities, and real estate industries.

Education

oct. 2017- sep. 2020 (expected) **Doctorat (Ph.D.)**, ***University of Toulouse***, ***IRIT***, Toulouse (France).

Optimisation-driven Monte Carlo algorithms, under the supervision of Nicolas Dobigeon (IRIT & IUF, Toulouse) and Pierre Chainais (CRIStAL, Lille).

I was awarded a competitive scholarship from an Excellence Laboratory. *Rank: 1/50+*.

In spring 2019, I was a visiting research scholar at the **University of Oxford** supervised by Arnaud Doucet (Professor of Statistics).

I am also a member of the ORION-B project which brings together observatorial astronomers, theoretical astrophysicists, data scientists and statisticians in order to analyze galactic and extra-galactic molecular line observations.

Short/long stays: Aalborg, Amsterdam, Brighton, Oxford, Paris, London, Warwick.

2016-2017 **Master: M.Sc. in Applied Mathematics**, ***University of Lille***, Lille (France).
Major in **Probability & Statistics**: Itô calculus, statistics, stochastic processes. *Honours*.

Clearance pricing policy optimisation with an application to Leroy Merlin France pricing strategy, under the supervision of Azzouz Dermoune (Paul Painlevé, Lille).

2013-2017 **Master: M.Sc. in Engineering**, ***École Centrale de Lille***, Lille (France).
Major in **Data Analysis & Decision making (DAD):** optimisation, statistical estimation, statistical learning. *Rank: 1*.

2011-2013 **Preparatory School to French Grandes Ecoles**, ***Lycée du Parc***, Lyon (France).

Intensive preparatory courses in mathematics & physics for competitive entrance exams to French Grandes Écoles.

Publications

[6] **Maxime Vono**, Daniel Paulin, Arnaud Doucet (2019), *Efficient MCMC sampling with dimension-free convergence rate using ADMM-type splitting*, submitted for publication. Available online at https://arxiv.org/abs/1905.11937.

[5] **Maxime Vono**, Nicolas Dobigeon, Pierre Chainais (2019), *Asymptotically exact data augmentation: models, properties and algorithms*, submitted for publication. Available online at https://arxiv.org/abs/1902.05754.

[4] **Maxime Vono**, Nicolas Dobigeon, Pierre Chainais (2019). *Split-and-augmented Gibbs sampler - Application to large-scale inference problems*, IEEE Transactions on Signal Processing, vol. 67, no. 6, pp. 1648-1661.

[3] **Maxime Vono**, Nicolas Dobigeon, Pierre Chainais (2019), *Image restoration under Poisson noise and log-concave prior*, in Proc. IEEE Int. Conf. Acoust., Speech, and Signal Processing (ICASSP), Brighton, U.K.

[2] **Maxime Vono**, Nicolas Dobigeon, Pierre Chainais (2019), *Efficient sampling through variable splitting-inspired Bayesian hierarchical models*, in Proc. IEEE Int. Conf. Acoust., Speech, and Signal Processing (ICASSP), Brighton, U.K.

[1] **Maxime Vono**, Nicolas Dobigeon, Pierre Chainais (2018), *Sparse Bayesian binary logistic regression using the split-and-augmented Gibbs sampler*. In Proc. IEEE Int. Workshop on Machine Learning for Signal Processing (MLSP), Aalborg, Denmark. *Finalist for the Best Student Paper Awards*.

Computer skills

Programming	MATLAB, Python, R
Documents	LaTeX, Microsoft Office

Languages

French	Mother tongue
English	Fluent
Spanish	Fluent

Interests

Athletics — Practiced athletics for 15 years and specialized in 800 meters/1500 meters. Awards: 5 x departmental champion, 2 x regional championships bronze medallist, qualified at national competitions.