# Maxime Vono

*Ph.D. Candidate in Statistics*

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*https://mvono.github.io*

## Work experience

sep. 2018 - sep. 2019 **Data Science consultant**, *Intermarché*, Paris.
Consultancy missions for the Strategy, Commercial Performance and Data direction of Intermarché, an international supermarket chain (32 days).
Main missions: data strategy and sales/revenue forecasting.

apr. 2017 - sep. 2017 **Data Scientist intern**, *Vekia*, Lille.
Machine learning techniques (random forests, sparse representations, time series, ...) applied to sales forecasting issues and supply chain management.
Led 4 major projects in different sectors: clothing, home improvement, food and health/beauty.

2016 - 2017 **Data Scientist intern & Operations Research consultant**, *Leroy Merlin France*, Lille.
Major project: price optimisation in clearance and promotional events. The derived pricing strategy was tested on real sales transactions and has been proposed to some French brick-and-mortar stores.
Minor project: 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.
Analysed financial statements of companies in biotech, charities, and real estate industries.

## Education

2017-2020 **Ph.D. in Statistics**, ***University of Toulouse***, ***IRIT***, Toulouse.
*Asymptotically exact data augmentation - Models and Monte Carlo sampling with applications to Bayesian inference*, under the supervision of Nicolas Dobigeon and Pierre Chainais.

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** in Arnaud Doucet's research group.

I was 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.

2016-2017 **M.Sc. in Applied Mathematics**, ***University of Lille***, Lille.
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.

2013-2017 **M.Sc. in Engineering**, ***École Centrale de Lille***, Lille.
Major in **Data Analysis & Decision making (DAD):** optimisation, statistical estimation, statistical learning.
Minor in project management, business and accounting. *Rank: 1*.

## Selected 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 (2020), *Asymptotically exact data augmentation: models, properties and algorithms*, Journal of Computational and Graphical Statistics (in press)

[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

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|---|---|
| Programming | MATLAB, Python, R |
| Documents | LaTeX, Microsoft Office |

## Languages

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|---|---|
| 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.