Mehdi Bahri *Research & Development Data Scientist*

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Research Interests

Bayesian Learning, Compressed Sensing, Component Analysis, Manifold Learning, Network Analysis

Education

Imperial College London — London, United Kingdom

MSc. Advanced Computing - *Distinction (84%)* *2015 – 2016*
Data Science • Machine Learning • Optimisation • Numerical Simulation

Thesis: Robust Low-Rank modeling on Tensors: New Algorithms and Extensive Comparisons
*Awarded the **Winton Capital Computing MSc Project Prize (1/188 students)***

Grenoble INP - Ensimag — Grenoble, France

Dipl. Ingénieur. Applied Mathematics and Computer Science - *With High Honours (76%)* *2013 – 2016*
Statistics • Bayesian Learning • Data Mining • Operations Research • Algorithms • Numerical Analysis • Numerical Optimisation • Software Engineering • Databases • Concurrent Programming

Mathematical modeling, Graphics, Vision, and Simulation track. Focus: statistics, applied mathematics

Lycée Chateaubriand — Rennes, France

Classes Préparatoires aux Grandes Écoles (Preparatory Program) PC* *2010 – 2013*
Two-year intensive training coursework in advanced mathematics, physics, and chemistry
Leading to the nationwide competitive entrance examinations to the French Grandes Écoles for scientific studies

Research and Professional Experience

HarperCollins Publishers - Data Scientist — London, United Kingdom

Research & Development - Global Pricing and Analytics *09/16 - Current*

- In charge of modeling book sales through network analysis and graph mining
- Predicting the ranking of e-books in terms of impact on the network when put on sale
- Reading research from related fields (social network analysis, bio-informatics, *etc.*)
- Investigation of volume propagation in the network, and inference of structure from attributes

Imperial College London - Master's Thesis — London, United Kingdom

Robust Low-Rank modeling on Tensors: New Algorithms and Extensive Comparisons *04/16 - 09/16*

- Designed 4 efficient ADMM algorithms for simultaneous learning of structured dictionaries and (sparse and dense) representations
- Ran benchmarks against 11 competing algorithms on 5 computer vision experiments; showed my methods consistently match or outperform the state of the art
- Proposed a Bayesian treatment based on sparse Bayesian learning and Variational Inference
- Maintained low-order polynomial complexity, discussed ways of scaling through distributed computing
- Efficient implementation: MATLAB, C, BLAS/LAPACK, OpenMP

Paper submitted to CVPR 2017. Paper in preparation for IEEE TPAMI.
Supervisor: Dr Stefanos Zafeiriou.

Morgan Stanley - Technology Summer Analyst — London, United Kingdom

Software Engineering - Technology & Data department *06/15 - 09/15*

- In charge of designing and testing a prototype for a trade control system
- Devised a client - server architecture; full-stack development
- Worked with legacy code, wrote extensive documentation

Presented at the global meeting of the sub-department. Project continued for integration into production.

CEA Grenoble & Ensimag - Specialism project — Grenoble, France

Prediction of the nature of missing values in quantitative proteomics — *06/15*

- Research project on unsupervised learning in a team of three
- Supervised by a statistician from the French Alternative Energies and Atomic Energy Commission (CEA)

TIMC-IMAG & Ensimag - Independent Study Option — Grenoble, France

Probabilistic inference and modeling of over-diagnosis — *01/15 - 05/15*

- Joint laboratory with the University of Grenoble's Faculty of Medicine
- Bayesian Modeling of over-diagnosis in a population of patients
- Hybrid MCMC-EM algorithms for inference (R implementation)

Presented results to a committee of researchers. Earned second best mark of the cohort.

Awards and scholarships

2016	Winton Capital Computing MSc Project Prize (£600)- *Best MSc thesis in the Department of Computing*
2016	Pump it Up: Data Mining the Water Table *DrivenData Competition* - top 7%
2015	Explo'ra Sup Travel grant for studying at Imperial College London (3000€)
2013	First prize at the HackMyCity Hackathon in Grenoble

Skills

Computing skills

Programming *(advanced)*	Python, Java, C, Shell
Programming *(intermediate)*	SQL, Javascript, Prolog
Modeling	MATLAB, R, NumPy/SciPy, Mathematica
Tools	Git, LaTeX, MongoDB

Languages

French	*Native*
English	*Fluent*
Spanish	*Intermediate*

Community Service and Leadership

2013 - 2015	Elected student representative *Ensimag's Education and Student Life Committee*
2014 - 2015	Member of the administration board *Ensimag's Students' Union*
2014 - 2015	Member of the administration board *Ensimag's Junior-Enterprise (Nsigma)*

References available upon request