Mehdi Bahri PhD Student in Machine Learning

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Education

Imperial College London

LONDON, UNITED KINGDOM

PhD. Machine Learning

2017 - (2021)

Geometric Deep Learning & Generative Models with applications to Computer Vision. *Full scholarship* from the Department of Computing. *Supervisor: Dr Stefanos Zafeiriou*.

MSc. Advanced Computing - Distinction (84%)

2015 - 2016

Awarded the Winton Capital Computing MSc Project Prize for best thesis in Computer Science (1/188 students).

Grenoble INP - Ensimag

Grenoble, France

BSc. and MSc. Applied Mathematics and Computer Science - with High Honours

2010 - 2016

06/18 - 09/18

2010 - 2013: Classes Préparatoires aux Grandes Écoles PC* - Lycée Chateaubriand, Rennes, France.

Professional Experience and Selected Projects

JPMorgan Chase & Co - Quantitative Associate Intern

LONDON, UNITED KINGDOM

Systematic Trading LQR

Quantitative Research Off-Cycle Internship in Machine Learning.

Time series forecasting and volatility modeling for automated trading of single stocks options

Speechmatics (Cantab Research Ltd.) - Speech Recognition Intern

CAMBRIDGE, UNITED KINGDOM

Research & Development

04/17 - 07/17

Improving the RNN language models by implementing research papers in TensorFlow and C++. Divided model size by 4 while keeping the same cross-entropy loss / perplexity and WER.

HarperCollins Publishers - Data Scientist

LONDON, UNITED KINGDOM

Global Pricing and Analytics

09/16 - 03/17

Graph mining and influence maximization to maximize uplift of books on special offers. Analyzed MongoDB databases of more than 100Gb with scikit-learn and networkx.

Imperial College - Master's Thesis

LONDON, UNITED KINGDOM

Robust Low-Rank Modeling on Tensors: New Algorithms and Extensive Comparisons 04/16 - 09/16 Devised 4 ADMM solvers and a Variational Bayes algorithm for robust tensor factorizations (extensions of matrix factorizations) in MATLAB. Compared against 11 state-of-the-art methods on computer vision benchmarks, analyzed 500Gb of experimental data, and showed improvements of up to 16% higher PSNR and FSIM. Published in top venue. *Supervisors: Dr Stefanos Zafeiriou & Dr Yannis Panagakis*.

Publications

- M. Bahri, Y. Panagakis, and S. Zafeiriou, "Robust Kronecker-Decomposable Component Analysis for Low Rank Modeling" in International Conference on Computer Vision (ICCV) 2017
- N. Xue, G. Papamakarios, M. Bahri, Y. Panagakis, and S. Zafeiriou, "Robust Low-rank Tensor Modelling Using Tucker and CP Decomposition" in European Signal Processing Conference (EUSIPCO) 2017

Skills

Computing skills		Languages	
Programming (advanced) Programming (intermediate) Modeling Tools	Python, Java, C, Shell SQL, Javascript, Prolog, C++ MATLAB, R, NumPy/SciPy, TensorFlow, Scikit-learn Git, LATEX, MongoDB	French English	Native Fluent Intermediate

Interests

Fitness, Nutrition • Elected Student Representative, *Ensimag* • Morgan Stanley Campus Ambassador, *Ensimag*References available upon request.