Emile MATHIEU

PERSONAL DATA

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WORK EXPERIENCE

SEPT-DEC 2019 | Research Intern at **Facebook Artificial Intelligence Research**, New York
Supervised by Maximilian Nickel.

MAY-SEP 2017 | Research Intern at **Department of Statistics**, Oxford
Studied sampling methods for discrete random probability measures in probabilistic programs ([1]). Contributed to the open source probabilistic program TURING.JL. Supervised by Prof. Yee Whye Teh.

JAN-JUL 2016 | Machine Learning Intern at **Criteo**, Paris
In the context of online auctions, improved predictive bidding models accuracy in the presence of perturbative and periodical events such as sales.

JUL-DEC 2015 | Software Engineer Intern at **BAM Lab**, Paris
Worked as a full-stack developer, using leading technologies to develop mobile and website applications, and their associated backend services.

MAY-JUL 2014 | Data Scientist Intern at **IFSTTAR Research Institute**, Paris
Applied unsupervised probabilistic models such as LDA, to transportation's data in order to better understand commuters behaviour.

EDUCATION

SINCE SEPT 2017 | PhD in Machine Learning with Prof. Yee Whye TEH
at **University of Oxford**, Department of Statistics.

2016 - 2017 | Master of Science (II) in Machine Learning & Computer Vision (MVA)
at **Ecole Normale Supérieure** Paris-Saclay, Paris, passed with honours | Gpa: 4/4

2014 - 2015 | Master of Science (I) in Mathematics & Computer Science
at **École des Ponts ParisTech**, Paris | Gpa: 3.94/4

2011 - 2014 | Bachelor's Degree in Science (Mathematics, Physics and Computer Science),
at **École des Ponts ParisTech**, Paris | Gpa: 3.857/4

JULY 2011 | Baccalauréat (French secondary school diploma)
Nantes, Science major, Mathematics option, passed with honours.

LANGUAGES

FRENCH: Mothertongue
ENGLISH: Fluent (TOEIC: 930, TOEFL: 103, GRE VR: 157)
SPANISH: Moderate

COMPUTER SKILLS

Advanced Knowledge: Python, PyTorch, Bash, LaTeX
Intermediate Knowledge: Julia, TensorFlow, Matlab, C++, JavaScript

PUBLICATIONS

[1] Benjamin Bloem-Reddy, Emile Mathieu, Adam Foster, Tom Rainforth, Hong Ge, María Lomelí, Zoubin Ghahramani, and Yee Whye Teh. Sampling and inference for discrete random probability measures in probabilistic programs. In *Workshop on Advances in Approximate Bayesian Inference, NIPS*, 2017. URL http://approximateinference.org/2017/accepted/Bloem-ReddyEtAl2017.pdf.

[2] Benjamin Bloem-Reddy, Adam Foster, Emile Mathieu, and Yee Whye Teh. Sampling and inference for beta neutral-to-the-left models of sparse networks. In *Conference on Uncertainty in Artificial Intelligence*, August 2018. URL http://auai.org/uai2018/proceedings/papers/185.pdf.

[3] Emile Mathieu, Charline Le Lan, Chris J Maddison, Ryota Tomioka, and Yee Whye Teh. Continuous Hierarchical Representations with Poincaré Variational Auto-Encoders. In *Advances in Neural Information Processing Systems*, 2019. URL https://arxiv.org/abs/1901.06033.

[4] Emile Mathieu, Tom Rainforth, N Siddharth, and Yee Whye Teh. Disentangling disentanglement in variational autoencoders. In Kamalika Chaudhuri and Ruslan Salakhutdinov, editors, *Proceedings of the 36th International Conference on Machine Learning*, volume 97 of *Proceedings of Machine Learning Research*, pages 4402–4412, Long Beach, California, USA, 09–15 Jun 2019. PMLR. URL http://proceedings.mlr.press/v97/mathieu19a.html.