

Akash Srivastava

General Information

Affiliation *Massachusetts Institute of Technology, IBM Research, Institute of Language, Cognition and Computation, School of Informatics, University of Edinburgh*

Lab Director Prof. David D. Cox

Supervisors Dr Charles Sutton and Dr Michael U. Gutmann

Address 75 Binney Street, Cambridge, MA, USA.

Contact akash.srivastava@me.com

Education

2014–2018 **PhD, ILCC, Informatics Forum**, University of Edinburgh, *UK*.
Variational Inference in Deep Generative Models.
Under Dr Charles Sutton and Dr Michael U. Gutmann

2013–2014 **MSc Informatics**, *School of Informatics*, University of Edinburgh, *Distinction*.
Machine Learning, Data Science and Natural Language Processing.
Thesis under Dr Victor Lavrenko

2009–2013 **BSc Artificial Intelligence and Computer Science**, *DCS*, University of Sheffield, *First Class Honours*.
Thesis under Prof. Fabio Ciravegna and Dr Trevor Cohn

Experience

Feb–March (2018) **Visiting Researcher**, *RIKEN Center for Advanced Intelligence Project*, Tokyo, Japan, Amortized Variational Inference.
Hosted by Emtiyaz Khan.

July–Sept (2017) **Research Intern**, *Microsoft Research, Cambridge*, Variational inference in web scale unsupervised learning problems in text.
Under John Winn.

2015–2016 **Tutor**, *Research Methods*, Informatics Forum.
Tutored MSc students in the Machine Learning Degree.

2013 **Summer Research Intern**, *OAK Group*, University of Sheffield.
Developed a novel method for real-time detection of events with low statistical support in Twitter stream to be used for crowd control in music festival. Under Fabio Ciravegna.

2011–2012 **Intern**, *Microsoft Technology Center*, Reading, UK.
◦ Whitecoat Award.

Scholarships and Awards

PhD Xerox Rank Scholarship

PhD School of Informatics Scholarship
PhD ICLR Travel Award, 2017
PhD NIPS Travel Award, 2017
MSc Informatics Global Scholarship
Bsc Sheffield Global Scholarship

Publications

- Kai Xu, Akash Srivastava and Charles Sutton. Variational Russian Roulette for Deep Bayesian Nonparametrics. ICML, 2019.
- Lazar Valkov, Dipak Chaudhari, Akash Srivastava, Swarat Chaudhuri and Charles Sutton. Synthesis of Differentiable Functional Programs for Lifelong Learning. NIPS, 2018.
- Mohammad Emtiyaz Khan, Zuozhu Liu, Voot Tangkaratt, Didrik Nielsen, Yarin Gal, Akash Srivastava. Vadam: Fast and Scalable Variational Inference by Perturbing Adam. ICML, 2018.
- Akash Srivastava, Lazar Valkov, Chris Russell, Michael U. Gutmann and Charles Sutton. VEEGAN: Reducing Mode Collapse in GANs using Implicit Variational Learning. NIPS, 2017.
- Akash Srivastava and Charles Sutton. Autoencoding Variational Inference for Topic Models. ICLR, 2017.
- Akash Srivastava, James Zou, Ryan P. Adams, and Charles Sutton. Clustering with a Reject Option: Interactive Clustering as Bayesian Prior Elicitation. IDEA Workshop, KDD, 2016 (**Oral**).

Preprints and Active Projects

- Akash Srivastava, Jessie Rosenberg, Dan Gutfreund and David D. Cox. SimVAE: Simulator-Assisted Training for Interpretable Generative Models. (Under review, draft available)
- Akash Srivastava, Kristjan Greenewald and Farzaneh Mirzazadeh. BreGMN: scaled-Bregman Generative Modeling Networks. (Under review, draft available)
- Akash Srivastava, Kai Xu, Michael U. Gutmann and Charles Sutton. Ratio Matching MMD Nets: Low dimensional projections for effective deep generative models. (Under review, draft available)
- Akash Srivastava and Charles Sutton. Deep Pachinko Allocation Machine. (Under review, draft available).
- Cole Hurwitz, Akash Srivastava, Kai Xu and Matthias Henning. Scalable Spike Source Localization in Extracellular Recordings using Amortized Variational Inference.

Thesis and Technical Reports

- Akash Srivastava. Burst Detection Modulated Document Clustering: A Partially Feature-Pivoted Approach To First Story Detection. Masters Thesis, 2014 under Dr Victor Lavrenko.

75 Binney Street – Cambridge, MA – USA

☎ +1 6173090615 • ✉ akash.srivastava@ibm.com

🌐 <http://akashgit.github.io/>

- Akash Srivastava. Event Detection in Twitter for Music Festivals. Internal Technical Report, 2013.
- Akash Srivastava. Question Detection in Twitter. BSc Thesis, 2013 under Prof. Fabio Ciravegna.