

Akash Srivastava

General Information

Affiliation *Institute of Language, Cognition and Computation, School of Informatics, University of Edinburgh*

Supervisor Dr Charles Sutton and Dr Michael U. Gutmann

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Education

2014–2017 **PhD**, *ILCC, Informatics Forum*, University of Edinburgh, *UK*.
Variational Inference in Deep Generative Models and Interactive Machine Learning.
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

Industry

2011–2012 **Intern**, *Microsoft Technology Center*, Reading, UK.
○ Provided technical support for Proof of Concept and Architectural Design sessions.
○ Achieved the Whitecoat Award.

Research

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.

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

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

Teaching

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

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🌐 <http://akashgit.github.io/>

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

- 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**).

Thesis and Technical Reports

- Akash Srivastava. Event Detection in Twitter for Music Festivals. Internal Technical Report, 2013.
- Akash Srivastava. Burst Detection Modulated Document Clustering: A Partially Feature-Pivoted Approach To First Story Detection. Masters Thesis, 2014 under Dr Victor Lavrenko.
- Akash Srivastava. Question Detection in Twitter. BSc Thesis, 2013 under Prof. Fabio Ciravegna.

On-going Projects

- Akash Srivastava and Charles Sutton. Deep Pachinko Allocation Machine. (Under review).
- Akash Srivastava and Michael U. Gutmann. StormGAN: Reducing Mode Collapse in GANs using Score Matching.
- Lazar Valkov, Dipak Chaudhari, Akash Srivastava, Swarat Chaudhuri and Charles Sutton. Lifelong Learning via Neural Program Synthesis.
- Cole Hurwitz, Akash Srivastava, Kai Xu and Matthias Henning. Autoencoding Waveforms to Spike Trains.
- Akash Srivastava, Lazar Valkov, Michael U. Gutmann and Charles Sutton. Cycle VAE: Fixing Component Collapsing in VAE.