Dustin Tran

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Education

2014–present **Ph.D. Statistics**, *Harvard University*
M.S. Computational Science and Engineering, *Harvard University*
Co-advisors: Edoardo Airoldi and David Blei.

2010–2014 **B.A. Mathematics, Statistics**, *University of California, Berkeley*
Advisor: David Aldous. Graduated with *Highest Honors*.

Awards

2015–present Harvard GSAS Fellowship (Harvard, Full funding)

2014 Dorothea Klumpke Roberts Prize in Mathematics (Berkeley, $1,000)

2010–2014 Regents' and Chancellor's Scholarship (Berkeley, Full funding)

2013 Rose Hills Foundation Science & Engineering Grant (Berkeley, $5,000)

2010 Cal Alumni Leadership Scholarship (Berkeley, $2,500)

Papers

1. Alp Kucukelbir, **Dustin Tran**, Rajesh Ranganath, Andrew Gelman, and David M. Blei. Automatic differentiation variational inference. *Journal of Machine Learning Research* (under review).
2. **Dustin Tran**, Panos Toulis, and Edoardo M. Airoldi. Stochastic gradient descent methods for estimation with large data sets. *Journal of Statistical Software* (under review).
3. Rajesh Ranganath, **Dustin Tran**, and David M. Blei. Hierarchical variational models. *Artificial Intelligence and Statistics* (under review).
4. Panos Toulis, **Dustin Tran**, and Edoardo M. Airoldi. Towards stability and optimality in stochastic gradient descent. *Artificial Intelligence and Statistics* (under review).
5. **Dustin Tran**, Minjae Kim, and Finale Doshi-Velez. Spectral M-estimation. *Neural Information Processing Systems Workshop*, 2015.
6. **Dustin Tran**, Rajesh Ranganath, and David M. Blei. Variational Gaussian process. *Neural Information Processing Systems Workshop*, 2015.
7. **Dustin Tran**, David M. Blei, and Edoardo M. Airoldi. Copula variational inference. *Neural Information Processing Systems*, 2015.

Employment

6/2015–present **Visiting Researcher**, *Columbia University*
Working with David Blei and Andrew Gelman on Bayesian inference for latent variable models. Developing black box algorithms in the Stan probabilistic programming language, which allow generic inference over all models.

5/2014–1/2015 **Data Scientist**, *Earnest*, San Francisco, CA
Built the primary algorithm for loan decision-making, which predicts the risk of default for a loan applicant using ensemble methods. Developed the infrastructure for web reporting, which would be used for internal operations, business development, and marketing.

Talks

Oct 2015 Department of Statistics, Harvard University

Sep 2015 Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology

Sep 2015 Harvard Intelligent Probabilistic Systems Group, Harvard University

Jul 2015	Max Planck Institute for Intelligent Systems, Tuebingen
Jan 2015	Cambridge Machine Learning Group, University of Cambridge
May 2014	Department of Statistics, University of California, Berkeley

Teaching

Fall 2014	Teaching Fellow, **Numerical Methods** (Applied Math 205), *Harvard University*
Spring 2013	Teaching Assistant, **Methods in Calculus, Statistics, Combinatorics** (Math 10B), *University of California, Berkeley*
Summer 2011	Teaching Assistant, **Numerical Analysis** (Math 128A), *University of California, Berkeley*

Service

Organizing

2015	NIPS Workshop: Advances in Approximate Bayesian Inference

Reviewing

2016–present	Artificial Intelligence and Statistics (AISTATS)

Member

2015–present	American Statistical Association
2015–present	Association of Computing Machinery
2015–present	Bernoulli Society
2015–present	Institute of Electrical and Electronics Engineers
2015–present	Institute for Mathematical Statistics
2015–present	International Society for Bayesian Analysis

Programming

- Languages: Python, C++, R, Julia, JavaScript (+D3.js), {Ba,z}sh
- Software: Vim, Git, Hadoop, SQL
- Operating Systems: GNU/Linux, BSD