# **Dustin Tran**

Ph.D. Student Columbia University Department of Computer Science New York, NY

dustin@cs.columbia.edu
http://www.dustintran.com/

### **Education**

Ph.D. Computer Science, Columbia University Advisors: David M. Blei, Andrew Gelman	2016–
M.S. Computational Science & Engineering, Harvard University Advisor: Edoardo M. Airoldi	2014–2015
B.A. (Hon.) Mathematics, Statistics, University of California, Berkeley	2010–2014
Employment	
Visiting Researcher Graduate School of Business, Stanford University Supervisor: Susan Athey Collaborators: Matt Hoffman, Kevin Murphy	2016
Visiting Researcher Department of Statistics and Computer Science, Columbia University Supervisors: David M. Blei, Andrew Gelman	2015
Awards	
Adobe Research Fellowship (\$10,000)	2016
Columbia SEAS Fellowship (Full funding)	2016–
LinkedIn Economic Graph Challenge	2015
Harvard GSAS Fellowship (Full funding)	2015
Dorothea Klumpke Roberts Prize in Mathematics	2014
Regents' and Chancellor's Scholarship (Full funding)	2010–2014
Rose Hills Foundation Science & Engineering Grant (\$5,000)	2013
Cal Alumni Leadership Scholarship (\$2,500)	2010

### **Publications**

PREPRINTS

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- 1. **D. Tran**, F. Ruiz, S. Athey, and D.M. Blei. Validating causal models.
- 2. R. Ranganath, **D. Tran**, J. Altosaar, and D.M. Blei. Operator variational inference.
- 3. A. Dieng, **D. Tran**, R. Ranganath, J. Paisley, and D.M. Blei. The  $\chi$  divergence for approximate inference.
- 4. G. Basse, J. Pouget-Abadie, **D. Tran**, E.M. Airoldi, Y. Xu, and S. Ghosh. Naive A/B tests for link formation algorithms lead to biased performance evaluations.
- 5. A. Kucukelbir, **D. Tran**, R. Ranganath, A. Gelman, and D.M. Blei. Automatic differentiation variational inference.
- 6. **D. Tran**, P. Toulis, and E.M. Airoldi. Stochastic gradient descent methods for estimation with large data sets.

#### REFEREED CONFERENCE PAPERS

- 7. R. Ranganath, **D. Tran**, and D.M. Blei. Hierarchical variational models. In *International Conference on Machine Learning*, 2016.
- 8. **D. Tran**, M. Kim, and F. Doshi-Velez. Spectral M-estimation with application to hidden Markov models. In *Artificial Intelligence and Statistics*, 2016.
- 9. P. Toulis, **D. Tran**, and E.M. Airoldi. Towards stability and optimality in stochastic gradient descent. In *Artificial Intelligence and Statistics*, 2016.
- 10. **D. Tran**, R. Ranganath, and D.M. Blei. The variational Gaussian process. In *International Conference on Learning Representations*, 2016.
- 11. **D. Tran**, D.M. Blei, and E.M. Airoldi. Copula variational inference. In *Neural Information Processing Systems*, 2015.

## **Teaching**

1. Teaching Fellow   Harvard University	2015
AM 205: Advanced Scientific Computing-Numerical Methods	
2. Teaching Assistant   University of California, Berkeley MATH 10B: Methods in Calculus, Statistics, Combinatorics	2013
3. Teaching Assistant   University of California, Berkeley MATH 128A: Numerical Analysis	2011

### **Professional Service**

JOURNAL REVIEWING

Foundations and Trends in Machine Learning	2016
Journal of Machine Learning Research	2016

CONFERENCE REVIEWING

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International Conference on Learning Representations	2016
International Conference on Machine Learning	2016
Knowledge Discovery and Data Mining	2016
Neural Information Processing Systems	2016
Uncertainty in Artificial Intelligence	2016
Workshop Organization	
NIPS: Advances in Approximate Bayesian Inference	2015
Professional Memberships	
American Statistical Association	
Association of Computing Machinery	
Bernoulli Society	
Institute of Electrical and Electronics Engineers	
Institute for Mathematical Statistics	
International Society for Bayesian Analysis	
Royal Statistical Society	
Invited Talks	
1. Google Brain – MOUNTAIN VIEW, CA	2016
2. International Conference on Learning Representations – SAN JUAN, PR	2016
3. PPAML/DARPA Meeting – NEW YORK, NY	2016
4. Harvard University – CAMBRIDGE, MA	2016
5. NIPS Workshop: Advances in Approximate Bayesian Inference – MONTREAL, CA	2015
6. NIPS Workshop: Black Box Learning and Inference – MONTREAL, CA	2015
7. Massachusetts Institute of Technology – CAMBRIDGE, MA	2015
8. Harvard University – CAMBRIDGE, MA	2015
9. Microsoft Research – CAMBRIDGE, MA	2015
10. University of Connecticut – STORRS, CT	2015
11. Max Planck Institute for Intelligent Systems – TÜBINGEN, DE	2015