Ryan J. Giordano

Contact Information

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Education

Massachusetts Institute of Technology, Cambridge, MA USA
Department of EECS, Computer Science & Artificial Intelligence Lab
Postdoctoral Research Fellow. Advisor: Tamara Broderick — 2019–present

University of California, Berkeley, CA USA
Ph.D., Statistics. Advisors: Michael I. Jordan, Jon McAuliffe, Tamara Broderick — 2013–2019

London School of Economics, London, UK
MSc., Econometrics. — 2007–2009

University of Illinois, Urbana-Champaign, IL, USA
BA., Mathematics. — 1997–2002
BS., Theoretical and Applied Mechanics. — 1997–2002

Professional Experience

Google Inc., Mountain View, CA USA
Senior Engineer, Quantitiative Analysis — 2009-2013

Macquarie Group, London, UK
Risk Management Intern — 2008

United States Peace Corps, Kokshetau, KZ
Education Volunteer, successful completion of service — 2004-2006

Hewlett-Packard, Boise, ID
Lifetest Coordinator and Reliability Engineer — 2002-2004

Honors and Awards

Notable Paper Award, Artificial Intelligence and Statistics (AISTATS) (2019)
Travel Award, Artificial Intelligence and Statistics (AISTATS) (2019)
Travel Award, Bayesian Nonparametrics Conference (2019)
Student Paper Award, ASA Section on Bayesian Statistical Science (2018)
Travel Award, International Society for Bayesian Analysis (ISBA) (2018)
Berkeley Institute for Data Science Fellow (2017-19)
Junior Travel Support Grant, International Society for Bayesian Analysis (ISBA) Bayes-Comp (2016)
Spotlight Paper, Neural Information Processing Systems (NeurIPS) (2015)
Outstanding Graduate Student Instructor Award (2015)
Travel Award, Neural Information Processing Systems Workshop on Variational Inference (2014)
Hertz Foundation Graduate Fellowship Finalist (2014)
Google Operating Committee Award (2010)
Advanced-high speaker of Russian in Peace Corps Aptitude Test (2006)
Advanced-mid speaker of Kazakh in Peace Corps Aptitude Test (2006)
Selected as a Peace Corps "Success Story" for a congressional report (2005)
Best Project, Undergraduate Mechanics Research Conference (2002)
Best Presentation, Undergraduate Mechanics Research Conference (2002)
Seely, Sinclair, Stippes, TAM Merit Scholarships (1998-2002)

Preprints

• T. D. Nguyen, **R. J. Giordano**, L. Masoero, L. Mackey & T. Broderick (2020). Independent finite approximations for Bayesian nonparametric inference: construction, error bounds, and practical implications. *arXiv:2009.10780 [stat.ME].* [pdf]

Publications

20. A. K. Dhaka, A. Catalina, M. R. Andersen, M. Magnusson, **R. J. Giordano**, A. Vehtari (2020). Robust, Accurate Stochastic Optimization for Variational Inference In *Proc. of the 34th Annual Conference on Neural Information Processing Systems (NeurIPS).* [pdf]

19. **R. J. Giordano**, M. Kasprzak, T. C. Campbell & T. Broderick (2020). Practical posterior error bounds from variational objectives. In *Proc. of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS).* [pdf]

$\star$ = contributed equally

Workshop Papers

3. B. Trippe, **R. J. Giordano** & T. Broderick (2018). Fast Bayesian Inference in GLMs with Low Rank Data Approximations. In *Symposium on Advances in Approximate Bayesian Inference.*

2. **R. J. Giordano**, L. Masoero, L. Mackey & T. Broderick (2017). Generic finite approximations for practical Bayesian nonparametrics. In *NeurIPS 2017 Workshop on Advances in Approximate Bayesian Inference.*

Miscellanea

3. **R. J. Giordano**, M. Kasprzak, T. C. Campbell & T. Broderick (2018). Practical bounds on the error of Bayesian posterior approximations: A nonasymptotic approach. *arXiv:1809.09505 [stat.TH].* [pdf]

2. **R. J. Giordano**, A. Saeedi & M. J. Johnson (2014). Detailed Derivations of Small-variance Asymptotics for some Hierarchical Bayesian Nonparametric Models. *arXiv:1501.00052 [stat.ML].* [pdf]

1. **R. J. Giordano** & F. Wood (2014). Infinite structured hidden semi-Markov models. *arXiv:1407.0044 [stat.ME].* [pdf]

Invited Talks

Previous

Using Bagged Posteriors for Robust Inference

Northeastern University, Boston, MA — February 2020
SPIRAL Seminar Series

Oxford University, Oxford, UK — October 2019
Statistics Seminar

Bristol University, Bristol, UK — October 2019
Data Science Seminar
Statistics Seminar

Massachusetts Institute of Technology, Cambridge, MA — November 2019
Doctoral Seminar in Statistics

Broad Institute of MIT and Harvard, Cambridge, MA — December 2019
Models, Inference, and Algorithms

Scalable, Reliably Accurate Bayesian Inference via Approximate Likelihoods and Random Features

Google AI, Cambridge, MA — February 2019

Broad Institute of MIT and Harvard, Cambridge, MA — February 2019

Northeastern University, Boston, MA — February 2019

Boston University, Boston, MA — January 2019

Finite-dimensional Approximations of Completely Random Measures
Stochastic Processes and Applications (SPA), Gothenburg, Sweden — June 2018

Scaling Bayesian Inference by Constructing Approximating Exponential Families
Boston Bayesian Meetup, Boston, MA — April 2018
Schlumberger Doll Research, Cambridge, MA — April 2018
Raytheon BBN Technologies, Cambridge, MA — February 2018

Contributed Talks

Previous

Using Bagged Posteriors for Robust Inference
Bayes Comp, Gainesville, FL — January 2020

Professional Service

Student Leadership

University of California, Berkeley, Statistics Department
- Diversity Taskforce Member — 2018-2019
- Graduate Student Mentor — 2017-2019
- Diversity Committee Member — 2017
- Co-organizer of the Gender and Diversity Roundtable — 2016-2018
- Student Seminar Committee Member — 2014-2017

Univeristy of Illinois, Urbana-Champaign, Engineering Mechanics Department
- President, Student Society for Experimental Mechanics — 2000-2002
- Organizer, Free University Opera for Engineering Students — 2001-2002

Journal Reviewing
- Journal of Machine Learning Research

Conference Reviewing
- Advances in Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- International Conference on Artificial Intelligence and Statistics (AISTATS)

Teaching

University of California, Berkeley, USA
- Teaching Assistant, STAT215 Applied Statistics (Graduate-level) — Fall 2014

Kokshetau Elementary School #3, Kokshetau, Kazakhstan
- Elementary school teacher of mathematics and English as a second language — 2004-2006

University of Illinois, Urbana-Champaign, USA
- Teaching Assistant, Mechanics of Materials Lab — Fall 1999
- Teaching Assistant, Introduction to Statics — Spring 1999