Jordan Boyd-Graber

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Summary

Jordan Boyd-Graber's research focus is in applying machine learning and Bayesian probabilistic models to problems that help us better understand social interaction or human cognition. His research applies statistical models to natural language problems in ways that interact with humans, learn from humans, or help researchers understand humans.

Jordan is an expert in the application of topic models, completely automatic tools that can discover structure and meaning in large, multilingual datasets. He is a contributor to the Natural Language Toolkit (NLTK), a popular Python package. His work has been supported by NSF, IARPA, and ARL.

He received a NIPS Best Paper award honorable mention, a Computing Innovation Fellowship (declined), and a Jorgensen fellowship. His Erdös number is 2.

Positions Held

University of Colorado Boulder — Boulder, CO
Assistant Professor of Computer Science *2014–Present*

University of Maryland — College Park, MD
Assistant Professor in the Institute for Advanced Computer Studies *2011–2014*
Assistant Professor of Information Studies *2010–2014*
Postdoc *2009–2010*
Advisor: Philip Resnik

Education

Princeton University — Princeton, NJ
Ph.D. in Computer Science *2004 – 2010*
Advisor: David Blei; Thesis: Linguistic Extensions of Topic Models

California Institute of Technology — Pasadena, CA
B.S. in Computer Science and History (dual degree) *2000 – 2004*

Selected Publications

Note: Students I have advised are underlined.

1. Viet-An Nguyen, **Jordan Boyd-Graber**, and Philip Resnik. **Lexical and Hierarchical Topic Regression**. *Neural Information Processing Systems*, 2013 (25% Acceptance Rate).
2. Yuening Hu, **Jordan Boyd-Graber**, Brianna Satinoff, and Alison Smith. **Interactive Topic Modeling**. *Machine Learning*, 2013.
3. Vladimir Eidelman, **Jordan Boyd-Graber**, and Philip Resnik. **Topic Models for Dynamic Translation Model Adaptation**. *Association for Computational Linguistics*, 2012 (21% Acceptance Rate).
4. Yuening Hu, Ke Zhai, Sinead Williamson, and **Jordan Boyd-Graber**. **Modeling Images using Transformed Indian Buffet Processes**. *International Conference of Machine Learning*, 2012 (27% Acceptance Rate).
5. Ke Zhai, **Jordan Boyd-Graber**, Nima Asadi, and Mohamad Alkhouja. **Mr. LDA: A Flexible Large Scale Topic Modeling Package using Variational Inference in MapReduce**. *ACM International Conference on World Wide Web*, 2012 (12% Acceptance Rate).
6. **Jordan Boyd-Graber** and Philip Resnik. **Holistic Sentiment Analysis Across Languages: Multilingual Supervised Latent Dirichlet Allocation**. *Empirical Methods in Natural Language Processing*, 2010 (25% Acceptance Rate).
7. Jonathan Chang, **Jordan Boyd-Graber**, Chong Wang, Sean Gerrish, and David M. Blei. **Reading Tea Leaves: How Humans Interpret Topic Models**. *Neural Information Processing Systems*, 2009 (24% Acceptance Rate).
8. **Jordan Boyd-Graber** and David M. Blei. **Syntactic Topic Models**. *Neural Information Processing Systems*, 2008 (25% Acceptance Rate).
9. **Jordan Boyd-Graber**, Christiane Fellbaum, Daniel Osherson, and Robert Schapire. **Adding Dense, Weighted, Connections to WordNet**. *Proceedings of the Global WordNet Conference*, 2006.
10. **Jordan Boyd-Graber**, Sonya S. Nikolova, Karyn A. Moffatt, Kenrick C. Kin, Joshua Y. Lee, Lester W. Mackey, Marilyn M. Tremaine, and Maria M. Klawe. **Participatory design with proxies: Developing a desktop-PDA system to support people with aphasia**. *Computer-Human Interaction*, 2006 (23% Acceptance Rate).

Natural languages: English *(native)*, German *(working)*, and Mandarin Chinese *(beginner)*.