

Aria D. Haghighi

CONTACT INFORMATION

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RESEARCH INTERESTS

Natural Language Processing: Discourse, Information Extraction, Summarization, Semantics
Machine Learning: Unsupervised Learning, Latent-Variable Models, Bayesian Nonparametrics

EDUCATION

University of California Berkeley
Ph.D (December 2010)
Dissertation: *Unsupervised Models of Entity Reference Resolution*
Advisor: Dan Klein

Stanford University
B.S with Distinction in Mathematics, June 2005
GPA: 3.97 (All) 4.00 (Major)

EMPLOYMENT

Assistant Professor of Computer Science, University of Massachusetts, January 2011 -
Postdoctoral Researcher, Massachusetts Institute of Technology, April 2010 - December 2010
Regina Barzilay Natural Language Processing Lab

HONORS AND AWARDS

Best Paper Award: *Coreference Resolution in a Modular, Entity-Centered Model*, with Dan Klein, North American Association of Computational Linguists (HLT-NAACL) (2010)
Outstanding Graduate Student Instructor: UC Berkeley (2009)
Microsoft Research Graduate Fellowship (2007-2009)
Best Student Paper Award: *Prototype-Driven Learning for Sequence Models*, with Dan Klein, North American Association of Computational Linguists (HLT-NAACL) (2006)
Department of Homeland Security Graduate Fellowship (2006)
Chancellor's Fellowship: UC Berkeley (2005)

PUBLICATIONS

An Entity-Level Approach to Information Extraction
Aria Haghighi and Dan Klein
Association of Computational Linguistics. ACL 2010

Coreference Resolution in a Modular, Entity-Centered Model
Aria Haghighi and Dan Klein
North American Association of Computational Linguistics. HLT-NAACL 2010

Exploring Content Models for Multi-Document Summarization
Aria Haghighi and Lucy Vanderwende
North American Association of Computational Linguistics. HLT-NAACL 2009

Better Word Alignments with Supervised ITG Models
Aria Haghighi, John Blitzer, John DeNero, and Dan Klein
Association of Computational Linguistics. ACL 2009

Simple Coreference Resolution with Rich Syntactic and Semantic Features

Aria Haghighi and Dan Klein

Empirical Methods in Natural Language Processing. EMNLP 2009

Learning Bilingual Lexicons from Monolingual Corpora

Aria Haghighi, Percy Liang, Taylor Berg-Kirkpatrick, and Dan Klein

Association of Computational Linguistics. ACL 2008

Coarse-to-Fine Syntactic Machine Translation using Language Projections

Slav Petrov, Aria Haghighi and Dan Klein

Empirical Meeting in Natural Language Processing. EMNLP 2008

Fully Distributed EM for Very Large Datasets

Jason Wolfe, Aria Haghighi and Dan Klein

International Conference of Machine Learning. ICML 2008

A Global Joint Model for Semantic Role Labeling

Kristina Toutanova, Aria Haghighi, and Christopher D. Manning

Journal of Computational Linguistics. CL 2008

Unsupervised Coreference Resolution in a Bayesian Nonparametric Model

Aria Haghighi and Dan Klein

Association of Computational Linguistics. ACL 2007

Approximate Factoring for A* Search

Aria Haghighi, John DeNero, and Dan Klein

North American Association of Computational Linguistics. HLT-NAACL 2007

A* Search via Approximate Factoring

Aria Haghighi, John DeNero, and Dan Klein

American Association of Artificial Intelligence. AAAI 2007

Prototype-Driven Learning for Sequence Models

Aria Haghighi and Dan Klein

North American Association of Computational Linguistics. HLT-NAACL 2006

Prototype-Driven Grammar Induction

Aria Haghighi and Dan Klein

Association of Computational Linguistics. ACL 2006

Robust Textual Inference via Graph Matching

Aria Haghighi, Andrew Y. Ng, and Christopher D. Manning

Empirical Meeting in Natural Language Processing. EMNLP 2005

Joint Learning Improves Semantic Role Labeling Kristina Toutanova, Aria Haghighi, and Christopher D. Manning

Association of Computational Linguistics. ACL 2005

A Joint Model for Semantic Role Labeling

Aria Haghighi, Kristina Toutanova, and Christopher D. Manning

Conference on Natural Language Learning. CoNLL 2005

Robust Textual Inference Using Diverse Knowledge Sources

Rajat Raina, Aria Haghighi, Christopher Cox, Jenny Finkel, Jeff Michels, Kristina Toutanova, Bill MacCartney, Marie-Catherine de Marneffe, Christopher D. Manning, and Andrew Y. Ng
PASCAL Challenges Workshop in Recognizing Textual Entailment. RTE 2005

TEACHING

Lecturer for CS70: Discrete Mathematics

UC Berkeley: Summer 2009

Prepared and delivered all course lectures; designed course syllabus, assignments, and exams. Average teaching effectiveness evaluation: 6.5/7.0. Average for this course over all instructors: 5.8/7.0.

Teaching Assistant for CS188: Artificial Intelligence

UC Berkeley: Spring 2006, Fall 2007, Fall 2008

Prepared course projects, assignments, and exams as well holding sections and weekly office hours. Also gave many guests lectures.

Teaching Assistant for CS294: Statistical Natural Language Processing

UC Berkeley: Fall 2005, Fall 2006, Spring 2008

Responsible for holding section and also advising students on final research projects.

PROFESSIONAL SERVICE

Workshop Co-Organizer: Latent-Variable Models in NLP, NIPS 2008

Journal Reviewing: Computational Linguistics, Journal of Artificial Intelligence Research

Conference Reviewing: ACL, NAACL-HLT, EMNLP, CoNLL, NIPS.

Software: See <http://www.cs.berkeley.edu/~aria42/software.html> for a software list.

RESEARCH AND INDUSTRY EXPERIENCE

Microsoft Research (2008)

Interned with NLP group and created summarization system featured at *TechFest* 2009.
contact: Lucy Vanderwende (Lucy.Vanderwende@microsoft.com)

Google Inc. (2005)

Summer Intern in Speech Processing and NLP groups.
contact: Mike Cohen (mcohen@google.com)