

Jason Naradowsky

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Department of Computer Science
University of Massachusetts Amherst
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Amherst, MA 01003

Research Interests

Statistical NLP, Bayesian Inference, Unsupervised Learning,
Language Acquisition, Computational Musicology

Education

- 2008-pres. PHD Candidate in Computer Science, University of Massachusetts Amherst
Advisor: David A. Smith
- 2008 MSc in Artificial Intelligence, University of Edinburgh
Thesis: Improving Morphology Induction with Phonological Rules
Advisor: Sharon Goldwater
- 2007 MS in Computational Linguistics, State University of New York at Buffalo
Thesis: The Effect of Frequencies and Unseen Events on Parser Portability
Advisor: Doug Roland
- 2006 MA in Human-Computer Interaction, State University of New York at Oswego
Project: Neural Networks for Automated Design Evaluation
Advisor: Craig Graci
- 2001-2005 BS in Computer Science, BA in Linguistics, State University of New York at Oswego
Specialization: Artificial Intelligence, with Honors
Minor: Cognitive Science

Summer Schools

- 2007 Linguistic Society of America Summer Institute 2007
Stanford University, Palo Alto, CA

Research Experience

- 2010 Research Intern
Microsoft Research, Redmond, WA 98052

Advisor: Kristina Toutanova

Research in morpheme-based alignment models for machine translation. Resulted in a model for joint morpheme segmentation and alignment based on the HMM alignment model.

2008-pres

Research Assistant

Computer Science Department, University of Massachusetts Amherst

Advisors: Andrew McCallum and David Smith

Research in unsupervised language learning, topic-modeling, parsing, and joint inference.

2008

Google Summer of Code 2008

Project: Dependency Parsing in the Natural Language Toolkit

Advisors: Sebastian Riedel and Jason Baldridge

Implemented a suite of four dependency parsers, relevant interfaces, and readers for commonly-used corpora.

2005-2006

Research Assistant

Psychology Department, State University of New York at Oswego

Advisors: Lin Qiu and Songmei Han

Research on cross-cultural HCI and adaptive feedback systems. Developed web applications for testing interface usability and augmented a program to provide adaptive natural language critiques for Java code. Conducted a set of experiments with undergraduate students for both projects.

Teaching Experience

Fall 2009

Grader

Computer Science Department, University of Massachusetts Amherst

Class: CMPSCI 585: Introduction to Natural Language Processing

Instructor: David Smith

Publications

Refereed Conference Proceedings

- [1] LEE, J., NARADOWSKY, J., AND SMITH, D. A discriminative model for joint morphological disambiguation and dependency parsing. In *Association for Computational Linguistics (ACL)* (2011).
- [2] MIMNO, D., WALLACH, H., NARADOWSKY, J., SMITH, D., AND MCCALLUM, A. Polylingual topic models. In *Conference on Empirical Methods in Natural Language Processing (EMNLP)* (2009).
- [3] NARADOWSKY, J., AND GOLDWATER, S. Improving morphology induction by learning spelling rules. In *International Joint Conference on AI* (2009), pp. 1531–1537.

- [4] NARADOWSKY, J., AND TOUTANOVA, K. Unsupervised bilingual morpheme segmentation and alignment with context-rich hidden semi-markov models. In *Association for Computational Linguistics (ACL)* (2011).

Workshop Proceedings

- [1] David Mimno, Hanna Wallach, Jason Naradowsky, David Smith, and Andrew McCallum. Polylingual topic models. In *The Learning Workshop (A.K.A. The Snowbird Workshop)*, 2009.

Other Publications

- [1] NARADOWSKY, J., PATER, J., SMITH, D., AND STAUBS, R. Learning hidden metrical structure with a log-linear model of grammar. In *Computational Modelling of Sound Pattern Acquisition*. (Edmonton, 2010), pp. 59–60.

Honors & Awards

- 2011 Cotutelle International Macquarie University Research Scholarship (iMQRES)
Macquarie University
- 2011 Institute for Computational and Experimental Study of Language (ICESL) Seed Grant
University of Massachusetts, Amherst
- 2005 Oebele Van Dyk Outstanding Senior in Computer Science Award
State University of New York at Oswego
- 2001-2005 Presidential Scholarship
State University of New York at Oswego