

JONATHAN GORDON

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EDUCATION

2009–2014	PhD, Computer Science Thesis: ‘Inferential Commonsense Knowledge from Text’. Advisor: Lenhart Schubert. Committee: James Allen, Daniel Gildea, Gregory Carlson.	<i>University of Rochester</i>
2007–2009	MS, Computer Science Advisor: Lenhart Schubert.	<i>University of Rochester</i>
2003–2007	BA, Computer Science Advisor: Nancy Ide.	<i>Vassar College</i>

RESEARCH INTERESTS

I am interested in the application of computational semantics to problems in artificial intelligence, especially the problem of acquiring the knowledge needed for commonsense reasoning. In my research I explore the large-scale acquisition of world knowledge from text and the problems that poses: What kind of text is appropriate for knowledge-acquisition? How do we evaluate a knowledge base? How can we turn the ambiguous, underspecified knowledge found in text into sufficiently disambiguated, probabilistic axioms we can reason with?

Other problems that interest me range from reporting bias (an elephant in the room for work in information extraction) to the identification of idioms and other fixed phrases (e.g., ‘elephant in the room’). Most recently I’ve looked at questions in lexical semantics, including the identification of features such as the mass–count distinction or stage-level vs individual-level predicates that play key roles in the formalization of lexical knowledge and in the semantic disambiguation of ordinary language, especially generic sentences.

RESEARCH EXPERIENCE

2014–present	Postdoctoral Researcher Supervisor: Jerry Hobbs.	<i>USC Information Sciences Institute</i>
2007–2014	Research Assistant Performed research in natural-language processing (NLP) and knowledge representation and reasoning (KRR), including the creation and evaluation of lexical resources and knowledge bases and the supervision of junior students. Supervisor: Lenhart Schubert.	<i>University of Rochester</i>

- Summer 2008 **Visiting Research Assistant** *USC Institute for Creative Technologies*
 Planned and created tools using latent semantic analysis (LSA) to automatically evaluate student essays for an intelligent tutoring system; ran experiments to train the system and test automated feedback. Supervisor: H. Chad Lane.
- Summer 2006 **Undergraduate Research Assistant** *Vassar College*
 Created a system to learn models of chord progressions characteristic of a musical genre. Supervisor: Luke Hunsberger.
- Summer 2005 **Undergraduate Research Assistant** *Vassar College*
 Worked on the creation of the manually annotated subcorpus (MASC) of the American National Corpus (ANC). Supervisor: Nancy Ide.

PUBLICATIONS

- Reasoning with Text-Derived Commonsense Knowledge* (in progress).
Jonathan Gordon & Lenhart Schubert. Journal article. 2014.
- Inferential Commonsense Knowledge from Text*
Jonathan Gordon. PhD Thesis. University of Rochester. 2014.
- Reporting Bias and Knowledge Acquisition*.
Jonathan Gordon & Benjamin Van Durme. In Proc. of the Workshop on Automated Knowledge Base Construction (AKBC 2013). (**Best Paper Award**)
- WordNet Hierarchy Axiomatization and the Mass-Count Distinction*.
Jonathan Gordon & Lenhart Schubert. In Proc. of the IEEE International Conference on Semantic Computing (ICSC 2013).
- Using Textual Patterns to Learn Expected Event Frequencies*.
Jonathan Gordon & Lenhart Schubert. In Proc. of the NAACL 2012 Workshop on Automatic Knowledge Base Construction and Web-Scale Knowledge Extraction (AKBC-WEKEX 2012).
- Towards Adequate Knowledge and Natural Inference*.
 Lenhart Schubert, **Jonathan Gordon**, Karl Stratos, and Adina Rubino. In Proc. of the AAAI 2011 Fall Symposium on Advances in Cognitive Systems.
- Episodic Logic: Natural Logic + Reasoning*.
 Karl Stratos, Lenhart Schubert, and **Jonathan Gordon**. In Proc. of the International Conference on Knowledge Engineering and Ontology Development (KEOD 2011).

Discovering Commonsense Entailment Rules Implicit in Sentences.

Jonathan Gordon & Lenhart Schubert. In Proc. of the EMNLP 2011 Workshop on Textual Entailment (TextInfer 2011).

Quantificational Sharpening of Commonsense Knowledge.

Jonathan Gordon & Lenhart Schubert. In Proc. of the AAAI 2010 Fall Symposium on Commonsense Knowledge.

Learning from the Web: Extracting General World Knowledge from Noisy Text.

Jonathan Gordon, Benjamin Van Durme, and Lenhart Schubert. In Proc. of the AAAI 2010 Workshop on Collaboratively-built Knowledge Sources and Artificial Intelligence (WikiAI).

Evaluation of Commonsense Knowledge with Mechanical Turk.

Jonathan Gordon, Benjamin Van Durme, and Lenhart Schubert. In Proc. of the NAACL 2010 Workshop on Creating Speech and Language Data with Amazon's Mechanical Turk.

Weblogs as a Source for Extracting General World Knowledge.

Jonathan Gordon, Benjamin Van Durme, and Lenhart Schubert. In Proc. of the International Conference on Knowledge Capture (K-CAP 2009).

INVITED TALKS

Towards Learning World Knowledge Suitable for Inference.

Reasoning with Text Workshop, 18–19 February 2011, USC Institute for Creative Technologies.

TEACHING EXPERIENCE

2008–9, 2013 **Teaching Assistant** *University of Rochester*
Assisted with graduate and undergraduate Computer Science classes, including lecturing, writing programming projects and labs, supervising undergraduate TAs, and grading homework and exams.

Fall 2004 **Lab Coach** *Vassar College*
Ran introductory Computer Science labs, helping students program in Java and holding weekly office hours for questions.

PROFESSIONAL ACTIVITIES

Program Committee, AHA! Workshop on Information Discovery in Text, COLING 2014.

Reviewer, AAAI Fall Symposium on Commonsense Knowledge (CSK 2010).

Meeting Organizer, Seminar in Knowledge, Inference, and Language, University of Rochester.

SKILLS

Programming	Especially in Lisp and Python on OS X and Linux.
NLP tools	Comfortable with NLTK, tokenization, parsing, TGrep, large-scale distributed processing.
Publication	Online (HTML & CSS) and print (L ^A T _E X).

References available on request.

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