

## Roi Reichart

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CONTACT INFORMATION Computer Science and Artificial Intelligence Laboratory (CSAIL) Massachusetts Institute of Technology (MIT), 32 Vassar Street, Cambridge, Massachusetts 02139 *www.cs.huji.ac.il/~roiri*  
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RESEARCH INTERESTS Natural Language Processing, Computational Models of Language Acquisition, Unsupervised and Semi-Supervised Learning for Language Acquisition.

### EDUCATION

**Massachusetts Institute of Technology (MIT).**

Post-doc Fellow/Associate. Post-doc host: Professor Regina Barzilay.  
Starting at 9/2010.

**The Hebrew University of Jerusalem.**

PhD, The Interdisciplinary Center for Neural Computation (ICNC).  
Advisor: Professor Ari Rappoport.  
Thesis title: Semi-Supervised Learning of Natural Language.  
10/2005 – 6/2010

**The Hebrew University of Jerusalem.**

MSc, The Interdisciplinary Center for Neural Computation (ICNC).  
6/2009 (part of direct PhD program). Average Grade: 95.

**The Open University of Israel.**

BA in Computer Science 9/1999 – 12/2003. Average Grade: 92.

### AWARDS AND SCHOLARSHIPS

**The ISF Bikura fellowship for outstanding Israeli post-docs (2011-2012).**

A two-years fellowship (34K dollars a year) and a research grant for first years in an academic position. Given by the Israel Science Foundation to six outstanding post-docs from all academic areas.

**The ELSC post-doctoral fellowship (2011).**

The Thirteenth Conference on Computational Natural Language Learning (CoNLL 2009). **Best paper award** for the paper: Sample Selection for Statistical Parsers: Cognitively Driven Algorithms and Evaluation Measures. (together with Ari Rappoport). Among the researchers that were awarded the prize are Michael Collins (2008), Alexander Clark (2010) and Kristina Toutanova (2011).

**The Golda Meir foundation scholarship** for PhD students (2008).

The Hebrew University of Jerusalem: **The Rector scholarship** for outstanding PhD students (2007 – 2009).

**PhD scholarship** of the Interdisciplinary Center for Neural Computation (ICNC), The Hebrew University of Jerusalem (2005 – 2009).

The Open University of Israel, **president prize and the Wolf foundation scholarship** (2000).

## RESEARCH PAPERS

Note: Conferences are the major publication forum in the Natural Language Processing field. The top conferences of the field (ACL, COLING, CoNLL and EMNLP) are highly competitive with acceptance rates no higher than 25%.

### **Efficient and Exact Inter-Sentence Decoding for Natural Language Processing.**

Alexander Rush, Roi Reichart, Michael Collins and Amir Globerson.  
*To be submitted, January 2012.*

### **You too?! Theme-based story matching to help teenagers in distress.**

Karthik Dinakar, Roi Reichart and Henry Lieberman.  
*Submitted, October, 2011.*

### **Confidence Driven Unsupervised Semantic Parsing.**

Dan Goldwasser, Roi Reichart, James Clarke and Dan Roth.  
*Association for Computational Linguistics. ACL 2011.*

### **Neutralizing Linguistically Problematic Annotations in Unsupervised Dependency Parsing Evaluation.**

Roy Schwartz, Omri Abend, Roi Reichart and Ari Rappoport.  
*Association for Computational Linguistics. ACL 2011.*

### **Modeling the Detection of Textual Cyberbullying.**

Karthik Dinakar, Roi Reichart and Henry Lieberman.  
*ICWSM-11 Workshop on Social Mobile Web. ICWSM-SMW 2011.*

### **Improved Fully Unsupervised Parsing with Zoomed Learning.**

Roi Reichart and Ari Rappoport.  
*Empirical Methods in Natural Language Processing. EMNLP 2010.*

### **Tense Sense Disambiguation: a New Task and a Supervised Algorithm.**

Roi Reichart and Ari Rappoport.  
*Empirical Methods in Natural Language Processing. EMNLP 2010.*

### **A Multi-Domain Web-Based Algorithm for POS Tagging of Unknown Words.**

Shulamit Umansky-Pesin, Roi Reichart and Ari Rappoport.  
*International Conference on Computational Linguistics. COLING 2010.*

### **Improved Unsupervised POS Induction Through Prototype Discovery.**

Omri Abend, Roi Reichart and Ari Rappoport.  
*Association for Computational Linguistics. ACL 2010.*

### **Improved Unsupervised POS Induction Using Intrinsic Clustering Quality**

**and a Zipfian Constraint.**

Roi Reichart, Raanan Fattal and Ari Rappoport.

*Conference on Computational Language Learning*. CoNLL 2010.

**Type level Clustering Evaluation: New Measures and a POS Induction Case Study.**

Roi Reichart, Omri Abend and Ari Rappoport.

*Conference on Computational Language Learning*. CoNLL 2010.

**Sample Selection for Statistical Parsers: Cognitively Driven Algorithms and Evaluation Measures.**

Roi Reichart and Ari Rappoport.

*Conference on Computational Natural Language Learning*. CoNLL 2009.

**Received Best Paper Award.**

**The NVI Clustering Evaluation Measure.**

Roi Reichart and Ari Rappoport.

*Conference on Computational Natural Language Learning*. CoNLL 2009.

**Automatic Selection of High Quality Parses Created by a Fully Unsupervised Parser.**

Roi Reichart and Ari Rappoport.

*Conference on Computational Natural Language Learning*. CoNLL 2009.

**Superior and Efficient Fully Unsupervised Pattern-based Concept Acquisition Using an Unsupervised Parser.**

Dmitry Davidov, Roi Reichart and Ari Rappoport.

*Conference on Computational Natural Language Learning*. CoNLL 2009.

**Unsupervised Argument Identification for Semantic Role Labeling.**

Omri Abend, Roi Reichart and Ari Rappoport.

*Association for Computational Linguistics*. ACL 2009.

**Multi-Task Active Learning for Linguistic Annotations.**

Roi Reichart, Katrin Tomanek, Udo Hahn and Ari Rappoport.

*Association for Computational Linguistics*. ACL 2008.

**Extraction of Entailed Semantic Relations Through Syntax-Based Comma Resolution.**

Vivek Sirkumar, Mark Sammons, Roi Reichart, Ari Rappoport and Dan Roth.

*Association for Computational Linguistics*. ACL 2008.

**Unsupervised Induction of Labeled Parse Trees by Clustering with Syntactic Features.**

Roi Reichart and Ari Rappoport.

*International Conference on Computational Linguistics*. COLING 2008.

**A Supervised Algorithm for Verb Disambiguation into VerbNet Classes.**

Omri Abend, Roi Reichart and Ari Rappoport.

*International Conference on Computational Linguistics*. COLING 2008.

**Self-Training for Enhancement and Domain Adaptation of Statistical Parsers Trained on Small Datasets.**

Roi Reichart and Ari Rappoport.

*Association for Computational Linguistics. ACL 2007.*

**An Ensemble Method for Selection of High Quality Parses.**

Roi Reichart and Ari Rappoport.

*Association for Computational Linguistics. ACL 2007.*

EDITED BOOKS

**Proceedings of the EMNLP Workshop on Unsupervised Learning in NLP.**

Roi Reichart, Omri Abend, Anna Korhonen and Ari Rappoport.

*Association for Computational Linguistics 2011.*

PROFESSIONAL  
ACTIVITIES

**Workshop Organizer:** First Workshop on Unsupervised Learning in NLP. EMNLP 2011 (together with Omri Abend, Anna Korhonen and Ari Rappoport).

**Journal Reviewer:** Natural Language Engineering.

**Senior Program Committee Member:** Twenty-Second International Conference on Artificial Intelligence. IJCAI 2011.

**Conference Reviewer/Program Committee Member:**

Association for Computational Linguistics. ACL 2011, 2012.

Conference on Computational Natural Language Learning. CoNLL. 2010, 2011.

North American Association for Computational Linguistics. NAACL. 2010.

European Association for Computational Linguistics. EACL. 2012.

Empirical Methods in Natural Language Processing. EMNLP. 2009, 2011.

International Conference on Computational Linguistics. COLING. 2008.

International Joint Conference on Natural Language Processing. IJCNLP. 2011.

TEACHING

**Introduction To Artificial Intelligence, 67842.** Hebrew University, 2009.

Teaching Assistant. This is an introductory course which covers broad topics in artificial intelligence: logic, search algorithms, game theory and machine learning.

**Theory of Neural Networks I, 76908.** Hebrew University, 2006-2010.

Grader. The course covers the foundations of learning in neural networks.

INDUSTRY  
EXPERIENCE

**National Institute for Testing and Evaluation**, since 9/2009:  
Natural Language Processing consultant.

**MABAT, Israel Aerospace Industry (IAI)**, 7/2002 - 10/2003:

Software engineer and algorithm developer.

#### LANGUAGES

**Hebrew.** Native Fluency.

**English.** Fluent in reading, writing and speaking.