

# Dan Garrette

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## EDUCATION

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### The University of Texas at Austin, Austin, TX

*Ph.D.*, Computer Science

Aug 2009 - Apr 2015

*M.S.*, Computer Science

Aug 2009 - Dec 2011

Advisors: Jason Baldridge and Raymond Mooney

### Illinois Wesleyan University, Bloomington, IL

*B.S.*, Computer Science, *with Research Honors*

Aug 2003 - Apr 2006

Minor: Cognitive Science

(completed in 3 years)

## PUBLICATIONS

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- [1] Dan Garrette, Chris Dyer, Jason Baldridge, and Noah A. Smith. “A Supertag-Context Model for Weakly-Supervised CCG Parser Learning”. In *Proc. of CoNLL*, 2015.
- [2] Dan Garrette, Hannah Alpert-Abrams, Taylor Berg-Kirkpatrick, and Dan Klein. “Unsupervised Code-Switching for Multilingual Historical Document Transcription”. In *Proc. of NAACL*, 2015.
- [3] Dan Garrette, Chris Dyer, Jason Baldridge, and Noah A. Smith. “Weakly-Supervised Grammar-Informed Bayesian CCG Parser Learning”. In *Proc. of AAAI*, 2015.
- [4] Dan Garrette, Chris Dyer, Jason Baldridge, and Noah A. Smith. “Weakly-Supervised Bayesian Learning of a CCG Supertagger”. In *Proc. of CoNLL*, 2014.
- [5] Dan Garrette, Jason Mielens, and Jason Baldridge. “Real-World Semi-Supervised Learning of POS-Taggers for Low-Resource Languages”. In *Proc. of ACL*, 2013.
- [6] Dan Garrette and Jason Baldridge. “Learning a Part-of-Speech Tagger from Two Hours of Annotation”. In *Proc. of NAACL*, 2013.  
★ **Best Talk Award** Finalist
- [7] Dan Garrette, Katrin Erk, and Raymond Mooney. “A Formal Approach to Linking Logical Form and Vector-Space Lexical Semantics”. In: Harry Bunt, Johan Bos, and Stephen Pulman (eds) *Computing Meaning, Vol. 4*, 2013.
- [8] Islam Beltagy, Cuong Chau, Gemma Boleda, Dan Garrette, Katrin Erk, and Raymond Mooney. “Montague Meets Markov: Deep Semantics with Probabilistic Logical Form”. In *Proc. of \*SEM*, 2013.
- [9] Dan Garrette and Jason Baldridge. “Type-Supervised Hidden Markov Models for Part-of-Speech Tagging with Incomplete Tag Dictionaries”. In *Proc. of EMNLP*, 2012.
- [10] Dan Garrette, Katrin Erk, and Raymond Mooney. “Integrating Logical Representations with Probabilistic Information using Markov Logic”. In *Proc. of the International Conference on Computational Semantics (IWCS)*, 2011.
- [11] Dan Garrette and Ewan Klein. “An Extensible Toolkit for Computational Semantics”. In *Proc. of the International Conference on Computational Semantics (IWCS)*, 2009.

## SELECTED RESEARCH EXPERIENCE

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### The University of Washington

Post-Doctoral Research Associate. Supervisor: Luke Zettlemoyer

May 2015 - Present

· Semi-supervised/low-resource learning for NLP, and the intersections of syntax and semantics.

### The University of Texas at Austin

Research Assistant. Supervisor: Jason Baldridge

Aug 2011 - May 2015

· Bayesian models of CCG parser induction from varieties of weak supervision.

Research Assistant. Supervisors: Katrin Erk and Ray Mooney

Aug 2009 - Aug 2011

· Unifying logical and distributional semantics for natural language representation and inference.

## Google

Intern. Supervisors: Jiwoon Jeon and Hang Cui May 2013 - Aug 2013  
· Machine learning and natural language processing research related to Google News.

## The University of Maryland Institute for Advanced Computer Studies

Research Assistant. Supervisor: Philip Resnik May 2012 - Aug 2012  
· Bayesian models of syntactic framing in political writing.

## INVITED TALKS

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University of Washington. "Learning CCGs from Weak Supervision". 2015.  
Carnegie Mellon University. "Learning CCGs from Weak Supervision". 2014.

## SELECTED TEACHING EXPERIENCE

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### The University of Texas at Austin

Instructor, Natural Language Processing (CS 378 / LIN 353N) Fall 2013  
· Upper-division undergraduate Computer Science and Linguistics course  
· <http://www.dhgarrette.com/nlpclass/>

Guest Lecturer, Graduate Computational Linguistics (LIN 386M) Fall 2011

Undergraduate Research Advising

Kelsey Taylor Ball 2014 - 2015  
Brianna Connelly 2014  
Matthew Ebeweber 2014

### The United States Peace Corps

Volunteer, Ghana, West Africa Jun 2006 - Feb 2007  
· Taught math and English in an underperforming rural junior secondary school.  
· Planned and performed HIV/AIDS presentations in rural communities and schools.

### Illinois Wesleyan University

Teaching Assistant Aug 2004 - Apr 2006  
· Courses on algorithms (in C and Haskell), abstract data structures (in C), and architecture.

## HONORS AND AWARDS

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### Graduate

Best Talk Award Finalist, NAACL 2013  
National Defense Science and Engineering Graduate Fellowship (NDSEG) - 2010-2013, approx \$155,000  
Student Travel Grant, EMNLP, 2012. \$800  
Student Travel Grant, CoNLL, 2014. \$500

### Undergraduate

Alumni Academic Scholarship  
Jennings Music Scholarship  
Upsilon Phi Epsilon - Computer Science Honor Society  
Dean's List - 6 of 6 semesters

## ACADEMIC SERVICE

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Conference reviewing: EMNLP (2014, 2013), EACL (2014), COLING (2014), IWCS (2015, 2013),  
ACL (2012), Texas Linguistic Society (2012)  
Journal reviewing: Computational Linguistics (3), Language Resources and Evaluation (1)  
Conference website developer/maintainer: IWCS-2013

## SELECTED OPEN SOURCE PROJECTS

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Numerous projects at <http://github.com/dhgarrette>

Natural Language Toolkit (NLTK) – <http://www.nltk.org/>

- Toolkit for natural language processing in Python

Feb 2007 - Present  
Committer since Jun 2007

Spring Batch – <http://static.springsource.org/spring-batch/>

- Application framework for batch processing in Java

Oct 2008 - Sep 2009  
Committer since Jan 2009

## OTHER WRITING

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- [1] Hannah Alpert-Abrams and Dan Garrette. “Automatic Transcription in Colonial Contexts: OCR for the *Primeros Libros*”. Texas Digital Humanities Conference, 2015.
- [2] Hannah Alpert-Abrams and Dan Garrette. “Reading the *Primeros Libros*: from Archive to OCR”. American Comparative Literature Association Conference, 2015.
- [3] Hannah Alpert-Abrams with Dan Garrette. “Some thoughts on the relationship between computational linguistics and literary scholarship”. Language Log, Sept 12, 2013.

## PROGRAMMING LANGUAGES

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Skilled: Scala, Python, Java (ordered by frequency of use)

Previous Experience: C, Haskell, MATLAB, Prolog, R, SQL (ordered alphabetically)

## OTHER SELECTED PROFESSIONAL EXPERIENCE

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### Accenture

Consultant

Sep 2008 - Aug 2009

- Served as one of four committers to the open-source Spring Batch framework.
  - Designed and developed new functionality. Identified and fixed bugs.
  - Wrote reference documentation and answered questions on the public forum.
- Assisted Accenture projects as a Subject Matter Expert for Spring Batch.
- Designed Spring Batch training curriculum and led on-site training in the US and India.
- Wrote documentation on Accenture’s approach to Java development for use company-wide.
- Certified by Accenture as a Technology Architect.

Analyst

May 2007 - Sep 2008

- Developed large-scale applications in Java.
- After just four months, was made a sub-team leader, formally leading a group of developers.
- After 15 months, promoted to Consultant. (Normal requirement is 2 to 3 years).

### TransUnion

Intern

Summers 2001-2005

- Fixed errors in the application that interacts with the credit database. Coded in C.

## UNIVERSITY ACTIVITIES

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### Graduate

- Organizer of the Natural Language Learning reading group (Aug 2011 - April 2015)
- UTCS Admissions Committee – Master’s Degree Program (2015)

### Undergraduate

- John Wesley Powell Student Research Conference - Presenter
- Symphonic Winds - Member, Percussion Section Leader for 5 semesters
- Civic Orchestra, Opera Orchestra, Titan Band, Percussion Ensemble - Member