Dan Garrette

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EDUCATION

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)

SELECTED RESEARCH EXPERIENCE

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.

PUBLICATIONS

[1] <u>Dan Garrette</u>, Chris Dyer, Jason Baldridge, and Noah A. Smith. "A Supertag-Context Model for Weakly-Supervised CCG Parser Learning". In *Proc. of CoNLL*, 2015.

[2] <u>Dan Garrette</u>, Hannah Alpert-Abrams, Taylor Berg-Kirkpatrick, and Dan Klein. "Unsupervised Code-Switching for Multilingual Historical Document Transcription". In *Proc. of NAACL*, 2015.

[3] <u>Dan Garrette</u>, Chris Dyer, Jason Baldridge, and Noah A. Smith. "Weakly-Supervised Grammar-Informed Bayesian CCG Parser Learning". In *Proc. of AAAI*, 2015.

[4] <u>Dan Garrette</u>, Chris Dyer, Jason Baldridge, and Noah A. Smith. "Weakly-Supervised Bayesian Learning of a CCG Supertagger". In *Proc. of CoNLL*, 2014.

[5] <u>Dan Garrette</u>, Jason Mielens, and Jason Baldridge. "Real-World Semi-Supervised Learning of POS-Taggers for Low-Resource Languages". In *Proc. of ACL*, 2013.

[6] <u>Dan Garrette</u> and Jason Baldridge. "Learning a Part-of-Speech Tagger from Two Hours of Annotation". In *Proc. of NAACL*, 2013.
    ⋆ **Best Talk Award** Finalist

[7] <u>Dan Garrette</u>, Katrin Erk, and Raymond Mooney. "A Formal Approach to Linking Logical Form and Vector-Space Lexical Semantics". Harry Bunt, Johan Bos, and Stephen Pulman (eds) *Computing Meaning, Vol. 4*, 2013.

[8] Islam Beltagy, Cuong Chau, Gemma Boleda, <u>Dan Garrette</u>, Katrin Erk, and Raymond Mooney. "Montague Meets Markov: Deep Semantics with Probabilistic Logical Form". In *Proc. of *SEM*, 2013.

[9] <u>Dan Garrette</u> and Jason Baldridge. "Type-Supervised Hidden Markov Models for Part-of-Speech Tagging with Incomplete Tag Dictionaries". In *Proc. of EMNLP*, 2012.

[10] <u>Dan Garrette</u>, Katrin Erk, and Raymond Mooney. "Integrating Logical Representations with Probabilistic Information using Markov Logic". In *Proc. of the Intl. Conference on Computational Semantics (IWCS)*, 2011.

[11] <u>Dan Garrette</u> and Ewan Klein. "An Extensible Toolkit for Computational Semantics". In *Proc. of the International Conference on Computational Semantics (IWCS)*, 2009.

INVITED TALKS

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

SELECTED TEACHING EXPERIENCE

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.
    · Ran study sessions for classes and tutored students.

HONORS AND AWARDS

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

Conference reviewing: ACL (2016, 2012), NAACL (2016), EMNLP (2015, 2014, 2013), EACL (2014),
    COLING (2014), IWCS (2015, 2013), Texas Linguistic Society (2012)
Journal reviewing: Computational Linguistics (4), Language Resources and Evaluation (1)
Conference website developer/maintainer: IWCS-2013

OTHER WRITING

[1] Hannah Alpert-Abrams and <u>Dan Garrette</u>. "Automatic Transcription in Colonial Contexts: OCR for the *Primeros Libros*". Texas Digital Humanities Conference, 2015.

[2] Hannah Alpert-Abrams and <u>Dan Garrette</u>. "Reading the *Primeros Libros*: from Archive to OCR". American Comparative Literature Association Conference, 2015.

[3] Hannah Alpert-Abrams with <u>Dan Garrette</u>. "Some thoughts on the relationship between computational linguistics and literary scholarship". Language Log, Sept 12, 2013.

PROGRAMMING LANGUAGES

Skilled: Scala, Python, Java (ordered by frequency of use)
Previous Experience: C, C++, Haskell, MATLAB, Prolog, R, SQL (ordered alphabetically)

Selected Open Source Projects

Numerous projects at *http://github.com/dhgarrette*

Natural Language Toolkit (NLTK) – *http://www.nltk.org/*   Feb 2007 - Present
  · Toolkit for natural language processing in Python   Committer since Jun 2007
  · Authored most *semantics* code: first-order logic, λ-calculus, DRT, inference, etc

Spring Batch – *http://static.springsource.org/spring-batch/*   Oct 2008 - Sep 2009
  · Application framework for batch processing in Java   Committer since Jan 2009

Other Selected Professional Experience

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).

The Burwood Group
   Consulting Intern   Jan 2006 - Jun 2006

Illinois Wesleyan University
   Technology Peer for the IWU Career Center   Sep 2005 - Dec 2005
      · Responsible for redesign of Career Center website, used regularly by students, alumni, and employers.

TransUnion
   Intern   Summers 2001-2005
      · Added features to the application that interacts with the credit database. Coded in C.

University Activities

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