

Julie Medero

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INTERESTS Natural Language Processing; Machine Learning; Educational Applications of Language Technology

EDUCATION **University of Washington, Seattle, WA**
Ph.D. Electrical Engineering (*Expected August 2014*)

- Thesis Topic: Automatically Reducing Text Difficulty for Low Literacy Adults
- Thesis Advisor: Prof. Mari Ostendorf

M.S. Electrical Engineering (*2010*)

Swarthmore College, Swarthmore, PA
B.A. Computer Science and Linguistics with High Honors (*2003*)

RESEARCH **Electrical Engineering Department, University of Washington, Seattle, WA**
EXPERIENCE Graduate Research Assistant (*2008-Present*)

- Defining a novel, empirical measure of text difficulty.
- Developing data-driven methods for automatically simplifying texts for low-literacy adults.
- Creating new methods for characterizing and identifying genre in text data.

Microsoft Research, Redmond, WA
Research Intern (*2011*)

- Created NLP tools for a mobile application that explains tests and medications to emergency department patients and their families.
- Developed a novel method for normalizing and disambiguating short, freehand, domain-specific text from emergency department triage input of patient chief complaints.
- Served as the interface between Natural Language Processing and Human-Computer Interaction researchers.

Linguistic Data Consortium, University of Pennsylvania, Philadelphia, PA
Research Programmer (*2003-2007*)

- Developed open-source GUI-based annotation tools for multi-modal, multilingual annotation projects.
- Prepared large corpora of Arabic, Chinese and English data for computational linguistics research.
- Worked with NIST to define data format specifications and validate deliverables.

Department of Engineering, Swarthmore College, Swarthmore, PA
Undergraduate Research Assistant (*2002*)

- Analyzed the characteristics of intra- and inter-object edges in computer images.
- Developed software for controlling autonomous robots for the 2002 AAAI Mobile Robot Competition.

TEACHING **University of Washington, Seattle, WA**
EXPERIENCE Instructor, Deep Processing for Natural Language Processing, Linguistics Department (*2013*)
Co-Instructor, Preparing for Graduate Education, College of Engineering (*2010-2012*)
Guest Lecturer, Artificial Intelligence for Engineers, Electrical Engineering Department (*2012*)
Guest Lecturer, Probability and Statistics for Engineers, Industrial Engineering Department (*2012*)

Literacy Source, Seattle, WA
Co-Instructor, Intermediate Math (*2013*)
Co-Instructor, Citizenship ESL (*2012*)

Swarthmore College, Swarthmore, PA
Teaching Assistant, Introductory Linguistics, Linguistics Department (*2000-2001*)
Teaching Assistant, Syntax, Linguistics Department (*2002*)

PUBLICATIONS J. Medero and M. Ostendorf, "Atypical Prosodic Structure as an Indicator of Reading Level and Text Difficulty," *Proc. NAACL HLT*, 2013.

J. Medero and M. Ostendorf, "Identifying Targets for Syntactic Simplification," *Proc. SLATE Workshop*, 2011.

J. Medero and M. Ostendorf, "Analysis of Vocabulary Difficulty Using Wiktionary," *Proc. SLATE Workshop*, 2009.

with S. Feldman et al., "Classifying factored genres with part-of-speech histograms", *Proc. NAACL HLT*, 2009.

with K. Maeda et al., "Annotation Tool Development for Large-Scale Corpus Creation Projects at the Linguistic Data Consortium," *Proc. LREC*, 2008.

J. Medero et al., "An Efficient Approach for Gold-Standard Annotation: Decision Points for Complex Tasks," *Proc. LREC*, 2006.

with K. Maeda et al., "A New Phase in Annotation Tool Development at the Linguistic Data Consortium: The Evolution of the Annotation Graph Toolkit," *Proc. LREC*, 2006.

J. Corder, et al., "A Modular Software Architecture for Heterogeneous Robot Tasks", *Proc. AAAI Mobile Robot Competition*, 2002. (As Julie Corder)

DATA with C. Walker et al., "REFLEX Entity Translation Training/DevTest", Linguistic Data Consortium, 2009.

RELEASES with O. Babko-Malaya et al., "Gale Phase 1 Distillation Training", Linguistic Data Consortium, 2007.

with C. Walker et al., "ACE 2005 Multilingual Training Corpus", Linguistic Data Consortium, 2006.

AWARDS **University of Washington**
 Osberg Fellowship, College of Engineering (2013)
 Spirit of Community Award, Electrical Engineering Department (2010, 2013)
 Boeing Fellowship, College of Engineering (2008)

National Science Foundation
 Graduate Research Fellowship (NSF GRFP) (2010-2013)

RELEVANT **Electrical Engineering**
 COURSEWORK Statistical Language Processing, Statistical Learning, Speech Processing, Stochastic Processes, Digital Signal Processing, Communication Networks, Wireless Communications, Power System Economics

Computer Science
 Computational Linguistics, Computational Models of Language and Learning, Artificial Intelligence, Adaptive Robotics, Data Structures, Algorithms, Theory of Computation, Operating Systems

Linguistics
 Syntax, Semantics, Linguistics of ASL, Languages of the World, Speech in Children's Fiction

SERVICE AND **Workshop on Innovative Use of NLP for Building Educational Applications (at ACL Conference)**
 OUTREACH Program Committee (2014)

University of Washington
 Environmental Innovation Challenge: Mentored a team of ten undergraduate engineering students. (2013)
 Women in Science and Engineering (WiSE) Conference talk: "Climbing the Academic Ladder" (2012)
 Research Assistant Workshop Moderator (2010, 2012)
 Electrical Engineering Graduate Advisor Interview Committee (2010)
 UW Women's Initiative: Presentations and hands-on engineering activities for school-aged girls (2009-2012)
 NSF AccessSTEM Project: Hands-on lab for high school and college students with disabilities (2009)

Workshop on Educational Interfaces, Software, and Technology (at CHI Conference)
 Reviewer (2012)

University of Alabama Huntsville
 Talk on "Graduate Funding Opportunities" (2011)