JASON MIELENS

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EDUCATION

University of Texas at Austin *2011 - 2016*
Ph.D. Computational Linguistics
- Dissertation: *Supervision for Syntactic Parsing of Low-Resource Languages*
- Research on the efficacy of various types of supervision in low-resource and focused-domain settings.
- Focused on the behavior of inexperienced annotators and the creation of usable training data from multiple noisy supervision sources.

University of Texas at Austin *2011 - 2014*
M.A. Linguistics
- Thesis: *Unknown Word Sequences in HPSG*
- Research focused on techniques for parsing sentences containing a substantial number of unknown words.
- 3.93/4.0 GPA

University of Wisconsin – Madison *2006 - 2011*
B.S. Computer Sciences & Linguistics
- Specialization in Natural Language Processing
- Graduation with Distinction
- 3.9/4.0 GPA

EXPERIENCE

University of Texas at Austin Aug. 2012 - Present
Graduate Research Assistant - Computational Linguistics *Austin, TX*
- Conducted research concerning the best ways to make use of small amounts of expert linguistic knowledge to improve computational techniques.
- Helped develop new syntactic parsing methods aimed specifically at low-resource languages and other limited-data applications.
- Research program focused on elevating the amount of linguistics in computational linguistics.

Quantified Communications July 2015 - Dec. 2015
NLP Consultant *Austin, TX*
- Provided advice on and developed prototypes for a variety of NLP solutions including discourse analysis, topic modeling, sentiment analysis, and natural language generation.

University of Wisconsin - Madison Jan. 2010 - June 2012
Laryngeal Physiology Lab - Research Assistant *Madison, WI*
- Conducted and published research focused on swallowing disorders, primarily involving novel methods for the detection and classification of dysphagias.
- Provided software tool development and data analysis support for multiple lab groups.

PUBLICATIONS

Computational Linguistics

- Jason Mielens, Liang Sun, and Jason Baldridge. *Parse Imputation for Dependency Annotations.* Proceedings of the Association for Computational Linguistics. 2015.
- Liang Sun, Jason Mielens, and Jason Baldridge. *Parsing Low-Resource Languages Using Gibbs Sampling for PCFGs with Latent Annotations.* Proceedings of EMNLP. 2014.
- Dan Garrette, Jason Mielens and Jason Baldridge. *Real-World Semi-Supervised Learning of POS-Taggers for Low-Resource Languages.* Proceedings of the Association for Computational Linguistics. 2013.

Laryngeal Physiology

- Hammer MJ, Jones CA, Mielens JD, Kim CH, McCulloch TM *Evaluating the Tongue-Hold Maneuver Using High-Resolution Manometry and Electromyography.* Dysphagia. 2014.
- Witt DR, Chen H, Mielens JD, McAvoy KE, Zhang F, Hoffman MR, Jiang JJ *Detection of Chronic Laryngitis due to Laryngopharyngeal Reflux Using Color and Texture Analysis of Laryngoscopic Images.* Journal of Voice. 2014.
- Hoffman MR, Mielens JD, Omari T, Rommel N, Jiang JJ *ANN Classification of Pharyngeal High-Resolution Manometry with Impedance Data.* Laryngoscope. 2013.
- Mielens JD, Hoffman MR, Ciucci MR, Mcculloch TM, Jiang JJ *Application of Classification Models to Pharyngeal High-Resolution Manometry.* Journal of Speech, Language and Hearing Research. 2012.
- Hoffman MR, Mielens JD, Ciucci MR, Jones CA, Jiang JJ, Mcculloch TM *High-Resolution Manometry of Pharyngeal Swallow Pressure Events Associated with Effortful Swallow and the Mendelsohn Maneuver.* Dysphagia. 2012.
- Mielens JD, Hoffman MR, Ciucci MR, Jiang JJ, Mcculloch TM *Automated Analysis of Pharyngeal Pressure data Obtained with High-Resolution Manometry.* Dysphagia. 2011.
- Hoffman MR, Ciucci MR, Mielens JD, Jiang JJ, Mcculloch TM *Pharyngeal swallow adaptations to Bolus Volume Measured with High-Resolution Manometry.* Laryngoscope. 2010.

AWARDS, GRANTS, AND HONORS

Carlota Smith Fellowship 2015
Student Poster Award - Dysphagia Research Society 2012
Phi Beta Kappa 2010

TECHNICAL SKILLS

Languages

- Preferred: Scala, Java, Python
- Experience in: C/C++, Ruby, JS

Tools / Libraries

- NLP: OpenNLP, word2vec, Mallet
- Machine Learning: SciPy/NumPy, MLlib, TensorFlow
- Scalability: Hadoop, Spark, Mahout, Giraph