

Skatje Myers

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Education

Ph.D., Computer Science and Cognitive Science (2023)
University of Colorado at Boulder

M.S., Computer Science (2016)
University of Colorado at Boulder

B.A., Computer Science (2010)
University of Minnesota - Morris

Ph.D. Dissertation

Adapting Semantic Role Labeling to New Genres and Languages (2023)
Advisor: Martha Palmer

Publications

- 1 **Skatje Myers** and Martha Palmer. 2023. Leveraging Active Learning to Minimise SRL Annotation Across Corpora. In *Proceedings of the 12th Joint Conference on Lexical and Computational Semantics (*SEM)*, Toronto, Ontario. Association for Computational Linguistics.
- 2 Sijia Ge, Jin Zhao, Kristin Wright-Bettner, **Skatje Myers**, Nianwen Xue, Martha Palmer. 2023. [UMR-Writer 2.0: Incorporating a New Keyboard Interface and Workflow into UMR-Writer](#). In *Proceedings of The 17th Linguistic Annotation Workshop (LAW XVII)*, Toronto, Ontario. Association for Computation Linguistics.
- 3 Julia Bonn, **Skatje Myers**, Jens E. L. Van Gysel, Lukas Denk, Meagan Vigus, Jin Zhao, Andrew Cowell, William Croft, Jan Hajič, James H. Martin, Alexis Palmer, Martha Palmer, James Pustejovsky, Zdenka Urešová, Rosa Vallejos, and Nianwen Xue. 2023. [Mapping AMR to UMR: Resources for Adapting Existing Corpora for Cross-Lingual Compatibility](#). In *Proceedings of the 21st International Workshop on Treebanks and Linguistic Theories (TLT, GURT/SyntaxFest 2023)*, pages 74–95, Washington, D.C.. Association for Computational Linguistics.
- 4 Sameer Pradhan, Julia Bonn, **Skatje Myers**, Kathryn Conger, Tim O’gorman, James Gung, Kristin Wright-bettner, and Martha Palmer. 2022. [PropBank Comes of Age—Larger, Smarter, and more Diverse](#). In *Proceedings of the 11th Joint Conference on Lexical and Computational Semantics*, pages 278–288, Seattle, Washington. Association for Computational Linguistics.
- 5 **Skatje Myers** and Martha Palmer. 2021. [Tuning Deep Active Learning for Semantic Role Labeling](#). In *Proceedings of the 14th International Conference on Computational Semantics (IWCS)*, pages 212–221, Groningen, The Netherlands (online). Association for Computational Linguistics. [[1 minute presentation](#)]
- 6 Zixuan Zhang, Nikolaus Parulian, Heng Ji, Ahmed Elsayed, **Skatje Myers**, and Martha Palmer. 2021. [Fine-grained Information Extraction from Biomedical Literature based on Knowledge-enriched Abstract Meaning Representation](#). In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pages 6261–6270, Online. Association for Computational Linguistics.

- 7 Sarah Moeller, Irina Wagner, Martha Palmer, Kathryn Conger, and **Skatje Myers**. 2020. [The Russian PropBank](#). In *Proceedings of the Twelfth Language Resources and Evaluation Conference*, pages 5995–6002, Marseille, France. European Language Resources Association.
- 8 **Skatje Myers** and Martha Palmer. 2019. [ClearTAC: Verb Tense, Aspect, and Form Classification Using Neural Nets](#). In *Proceedings of the First International Workshop on Designing Meaning Representations*, pages 136–140, Florence, Italy. Association for Computational Linguistics.
- 9 Ruth Duerr, **Skatje Myers**, Martha Palmer, Chris J. Jenkins, Anne Thessen, and James Martin. 2015. [Natural Language Processing and Machine Learning \(NLP/ML\): Applying Advances in Biomedicine to the Earth Sciences](#). In *American Geophysical Union, Fall Meeting Abstracts, vol. 2015*, pages IN51A-1784.

In Preparation

- 10 Kristin Wright-Bettner, **Skatje Myers**, Jon Cai, Martha Palmer, Jim Martin, Guergana Savova, Danielle Bitterman. Abstract Meaning Representation for Temporal-Relation Extraction on Clinical Text. *In preparation for submission to TACL*.
- 11 **Skatje Myers**, Ishan Jindal, Martha Palmer. Improving Cross-lingual Projection Through Filtering. *In preparation for submission to LREC-COLING*.

Experience

Research

Medical NLP, funded through NIH [THYME](#) (2014 - 2023)

Project goals: Developing tools for automatic discovery of events and their relations from clinical text.

Contributions: Projecting temporal and coreference annotations from raw clinical text annotation to AMRs and automatically generating AMRs for formulaic clinical text [10]. Detailed analysis and comparison of semantic representations. Developing and analysing active learning techniques for use in training SRL models for unstructured clinical text [1][5]. Annotation support and participation in schema development for temporal and coreference relations on unstructured clinical text.

Cross-lingual projection of semantic annotation, funded by DARPA AIDA, NSF [UMR & UMR2](#), DARPA KAIROS (2015 - present)

Project goals: Expansion of semantic representations to low resource languages.

Contributions: Annotation support for Russian SRL across multiple platforms [7], overseeing annotation and adjudication of [Russian PropBank](#) over the recent years, manual annotation and testing word alignment systems for Russian, development and testing of filtering techniques to improve projection for Russian and other languages [11].

ClearEarth, funded through NSF DIBBS (2014 - 2017)

Project goals: Applying NLP/ML techniques that have been successfully used in the biomedical field to establish new semantic resources for the geosciences.

Contributions: Support for NE, syntactic parsing, and SRL annotation in the geoscience domains; converting existing OWL ontologies to SKOS to facilitate further development; participation in the development of ML-compatible ontologies with data geoscientists [9]. Developing and analysing active learning techniques for use in training SRL models for the target domains [1].

Teaching

Natural Language Processing, grader. (Fall 2016, Fall 2014)

Introduction to Programming, teaching assistant. (Fall 2013)

Internships

3M Health Information Systems (Summer 2016)

Predicting length of stay based on structured electronic health records.

HRL Laboratories (Summer 2014)

Project working on neuro-semantic mapping. Focused on investigating the use of WordNet domains as a feature, and semi-automatically expanding the existing domain labels to better encompass and describe the target vocabulary.

Other Employment

MIOsoft (2010 - 2013)

Software engineer

Implementation of a distributed file system, including the server (Java) and two clients (Java and Smalltalk), providing message handling, enabling 12 file service operations, lock management, and subscriptions. Improvements to buffer management and LRU caching.

Miscellaneous

Graduate Mentoring Certificate program (CU Boulder, 2017)

NAACL scholarship for the Johns Hopkins University's Summer School on Human-Language Technology (2010)

CRA-W Distributed Research Experiences for Undergraduates program (2009)

Mentored by Graciela Gonzalez at Arizona State University and working with Robert Leaman. The project explored using deep syntactic features to improve the biomedical named entity system **BANNER**.

Service & Outreach

CU Women in Computing

Vice Chair, 2014-2015

Event Coordinator, 2013-2014

AAUW's Expanding Your Horizons (2014, 2015)

Volunteer for conference for middle-school girls involving hands-on STEM activities, to educate and motivate young girls to become innovative and creative thinkers.

Various STEM outreach panels

CONvergence (2012 - 2015)

References

Dr. Martha Palmer (U of Colorado Boulder) - martha.palmer@colorado.edu

Dr. James Martin (U of Colorado Boulder) - james.martin@colorado.edu

Dr. Guergana Savova (Harvard and Boston Children's Hospital) - guergana.savova@childrens.harvard.edu

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<http://ska.tjemye.rs/cv.pdf>