Zoey (Ying) Liu

Contact Information Department of Computer Science Email: ying.liu.5@bc.edu 140 Commonwealth Ave Phone: +1 (818)486-3022

Boston College Website: https://zoeyliu18.github.io

Chestnut Hill, MA 02467

Research Interests Computational linguistics; language typology; language documentation; language development.

EMPLOYMENT Postdoctoral research fellow 2020 -

Department of Computer Science, Boston College, Chestnut Hill, MA USA

Advisor: Emily Tucker Prud'hommeaux

Software development research intern

Summer 2019

Cognitive Computing Lab, Baidu, Beijing, PRC

Fellowship Computing Innovation Fellow 2021 - 2023

NSF / CRA

Ph.D., Linguistics **EDUCATION**

2016 - 2020

University of California, Davis, Davis, CA USA

Dissertation: Data-driven Crosslinguistic Modeling of Constituent Ordering Preferences

Dissertation committee: Kenji Sagae (chair), John A. Hawkins, Emily Morgan

M.A., Linguistics 2014 - 2016

University of California, Davis, Davis, CA USA

Thesis: Linguistic Fingerprint: A Computational Investigation of Authorship Attribution for

Short Text Documents

Thesis committee: Raúl Aranovich (chair), Almerindo Eduardo Ojeda, Santiago Barreda

2010 - 2014 B.A., Translation

Nankai University, Tianjin, PRC

Submitted Work Zoey Liu and Emily Prud'hommeaux. Model Generalizability in Crosslinguistic Low-resource Settings. Journal submission to Transactions of the Association for Computational Linguistics.

> Zoey Liu. A Multifactorial Approach to Crosslinguistic Constituent Orderings. Journal submission to Linguistics Vanguard.

> Natalia Levshina, Savithry Namboodiripad, Marc Allassonnière-Tang, Mathew A. Kramer, Luigi Talamo, Annemarie Verkerk, Sasha Wilmoth, Gabriela Garrido Rodriguez, Timothy Gupton, Evan Kidd, Zoey Liu, Chiara Naccarato, Rachel Nordlinger, Anastasia Panova, Natalia Stoynova. Why we need a gradient approach to word order. Journal submission to Linguistics: An Interdisciplinary Journal of the Language Sciences.

Open-Domain Information Extraction Construction Methods and System. China Patent #202000013489. With Cognitive Computing Lab, Baidu.

JOURNAL ARTICLES 2020. **Zoey Liu**. Mixed Evidence for Crosslinguistic Dependency Length Minimization. *STUF-Language Typology and Universals*.

2018. Santiago Barreda and **Zoey Liu**. Apparent-Talker Height is Influenced by Mandarin Lexical Tone. The Journal of the Acoustical Society of America, EL.

PEER-REVIEWED PROCEEDING PAPERS

- 2021. Christine Yang, Duanchen Liu, Qingyun Yang, **Zoey Liu** and Emily Prud'hommeaux. Predicting pragmatic discourse features in the language of adults with autism spectrum disorders. To appear in *Proceedings of the Student Research Workshop at The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021).*
- 2021. William Dyer, Richard Futrell, **Zoey Liu** and Gregory Scontras. Predicting cross-linguistic adjective order with information gain. To appear in *Findings of the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021).*
- 2021. **Zoey Liu**, Robbie Jimerson and Emily Prud'hommeaux. Morphological Segmentation for Seneca. To appear in *Proceedings of The First Workshop on NLP for Indigenous Languages of the Americas (AmericasNLP)*.
- 2021. **Zoey Liu** and Masoud Jasbi. English Negative Constructions and Communicative Functions in Child Language. To appear in *Proceedings of The 43rd Annual Conference of the Cognitive Science Society*.
- 2021. **Zoey Liu** and Emily Prud'hommeaux. Dependency Parsing Evaluation for Low-Resource Spontaneous Speech. In *Proceedings of The Second Workshop on Domain Adaptation for NLP (Adapt-NLP)*.
- 2021. **Zoey Liu**. The Crosslinguistic Relationship between Ordering Flexibility and Dependency Length Minimization: A Data-Driven Approach. In *Proceedings of The Society for Computation in Linguistics*.
- 2020. Mingming Sun, Wenyue Hua, **Zoey Liu**, Xin Wang, Kangjie Zheng and Ping Li. A Predicate-Function-Argument Annotation of Natural Language for Open-Domain Information expression. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*.
- 2020. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Constituent Ordering Preferences. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.
- 2019. **Zoey Liu**. A Comparative Corpus Analysis of PP Ordering in English and Chinese. In *Proceedings of the First Workshop on Quantitative Syntax (Quasy, SyntaxFest)*.
- 2018. Justin Spence, **Zoey Liu**, Kayla Palakurthy, and Tyler Lee-Wynant. Syntactic Annotation of a Hupa Text Corpus. In Proceedings of *Working Papers in Athabaskan Languages: Alaska Native Language Center Working Papers*.

PEER-REVIEWED PROCEEDING ABSTRACTS

- 2021. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Syntactic Constructions. In *Proceedings of The Society for Computation in Linguistics*.
- 2021. Alex Kramer and **Zoey Liu**. A Data-driven Approach to Crosslinguistic Structural Biases. In *Proceedings of The Society for Computation in Linguistics*.

- 2019. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. In *Proceedings of The Society for Computation in Linguistics* (extended abstract).
- 2018. **Zoey Liu** and Kenji Sagae. Dependency Length Minimization and Lexical Frequency in Prepositional Phrase Ordering in English. In *Proceedings of The Society for Computation in Linguistics* (extended abstract).

INVITED TALKS

- 2021. **Zoey Liu.** A Data-driven Approach to Structural Variation. Department of Linguistics, UC Davis, January 11th.
- 2020. **Zoey Liu.** Data-driven Crosslinguistic Modeling of Constituent Ordering Preferences. Ted-Lab, Department of Brain and Cognitive Sciences, MIT, October 6th.
- 2020. **Zoey Liu.** Frequency-dependent Regularization in Constituent Ordering Preferences. NERT, Department of Linguistics, Georgetown University, March 31st.

Conference Presentations

- 2021. **Zoey Liu** and Emily Prud'hommeaux. Dependency Parsing Evaluation for Low-Resource Spontaneous Speech. Oral presentation at *The Second Workshop on Domain Adaptation for NLP (Adapt-NLP)*, Kyiv, April 20th.
- 2021. **Zoey Liu**. A multifactorial approach to constituent orderings. Oral presentation at *The 34th Annual CUNY Human Sentence Processing Conference*, University of Pennsylvania, March 4-6..
- 2021. **Zoey Liu**. The Crosslinguistic Relationship between Ordering Flexibility and Dependency Length Minimization: A Data-Driven Approach. Poster presentation at *The Society for Computation in Linguistics*, Online, February 15-19..
- 2021. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Syntactic Constructions. Poster presentation at *The Society for Computation in Linguistics*, Online, February 15-19.
- 2021. Alex Kramer and **Zoey Liu**. A Data-driven Approach to Crosslinguistic Structural Biases. Poster presentation at *The Society for Computation in Linguistics*, Online, February 15-19.
- 2020. **Zoey Liu**. The Relationship between Word Order Flexibility and Dependency Length Minimization. Oral presentation at *53rd Annual Meeting of the Societas Linguistica Europaea*, Bucharest, August 26-29.
- 2020. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Constituent Ordering Preferences. Poster presentation at *The 42nd Annual Conference of the Cognitive Science Society*, Toronto, July 29 August 1.
- 2020. **Zoey Liu** and Emily Morgan. Item-specific Regularization in Word Order Preferences. Poster presentation at *The 11th International Conference on Construction Grammar*, Belgium, August 20-22 (postponed due to COVID-19).
- 2020. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Abstract Syntactic Structures. Oral presentation at *The 33rd Annual CUNY Human Sentence Processing Conference*, Amherst, March 19-21.
- 2020. **Zoey Liu**. Crosslinguistic Extent of Dependency Length Minimization. Poster presentation at *The 33rd Annual CUNY Human Sentence Processing Conference*, Amherst, March 19-21.
- 2020. Zoey Liu. Do Arguments Appear Closer Crosslinguistically? Poster presentation at The

33rd Annual CUNY Human Sentence Processing Conference, Amherst, March 19-21.

2019. **Zoey Liu**. A Comparative Corpus Analysis of PP Ordering in English and Chinese. Oral presentation at *SyntaxFest 2019*, Paris, August 26-30.

2019. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. Poster presentation at *The Society for Computation in Linguistics*, New York City, January 3-6.

2019. Santiago Barreda and **Zoey Liu**. The Effect of Linguistic Experience on the Perception of Talker Height from Speech. Poster presentation at *The 93rd Annual Meeting of the Linguistic Society of America*, New York City, January 3-6.

2018. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. Oral presentation at *California Meeting on Psycholinguistics*, Los Angeles, California, December 1-2.

2018. **Zoey Liu** and Kenji Sagae. Dependency Length Minimization and Lexical Frequency in Prepositional Phrase Ordering in English. Oral presentation at *The Society for Computation in Linquistics*, Salt Lake City, Utah, January 4-7.

2017. Justin Spence, **Zoey Liu**, Kayla Palakurthy, & Tyler Lee-Wynant. Syntactic Annotation of a Hupa Text Corpus. Oral presentation at *Dene/Athabaskan Language Conference*, Camp Verde, Arizona, June 27-29.

2017, **Zoey Liu**, Tyler Lee-Wynant, and Justin Spence. Building for the Future: Developing a Hupa Dependency Treebank. Oral presented at *UC Davis Symposium on Language Research*, Davis, California, May 26th.

2017. Justin Spence, **Zoey Liu.** Building for the Future: Adopting TEI Standards in a Text of Hupa. Oral presentation at *The Society of the Study of the Indigenous Languages of the Americas*, Austin, Texas, January 5-8.

2016. **Zoey Liu.** The Story of Collocation & Dispersion. Oral presentation at *UC Davis Symposium* on Language Research, Davis, California, May 20th.

2016. Carole E. Chaski, Elizabeth A. Smith, Cristina Aggazzotti, & **Zoey Liu.** Confirmation Bias and Metalinguistic Awareness. Oral presentation at *American Academy of Forensic Sciences*, Las Vegas, Nevada, February 22-27.

2016. **Zoey Liu.** The Role of Function Words: An Empirical Study of Text Distance Measure Performance. Oral presentation at *The Association for Linguistic Evidence*, Washington, D.C., January 7-10.

2015. **Zoey Liu.** Rethinking Collocation: Directional Association Measure and its Potential Role in Semantic Similarity Computation. Oral presentation at *California Universities Semantics and Pragmatics Work 8*, Palo Alto, California, November 6-7.

TEACHING EXPERIENCES

University of California, Davis, Davis, CA USA

Instructor

Introduction to Linguistics (Winter 2019, Summer 2018).

Teaching Assistant

Introduction to Linguistics (Spring 2020, Spring 2019, Summer 2017, Spring 2016, Winter 2016, Fall 2015, Spring 2015, Winter 2015).

Computational Linguistics (Winter 2020, Fall 2019, Fall 2018, Spring 2018, Winter 2018, Spring 2017).

Corpus Linguistos & Text Analysis (Winter 2017).

Linguistic Analysis I (Fall 2016).

Associate Instructor for ESL (Summer 2016).

SERVICE

Leadership Training Development, Advocates for Indigenous California Language Survival

Technical advisor & Planning committee member

2020 -

Breath of Life Archival Institute for Indigenous California Languages, Berkeley, CA USA

Linguistic partner & Technical service

June - July, 2020

Linguistic partner (Patwin)

June 3-9, 2018

Reviewer

Conference: EMNLP, AmericasNLP, SIGTYP, ACL, CoNLL

Journal: Glossa, Linguistics Vanguard

Honors and Awards University of California, Davis, Davis, CA USA

Outstanding Graduate Teaching Award, nominated

2017 2015

Combined Summer Awards, Linguistics Graduate Group and Institute for Social Science

Nankai University, Tianjin, PRC

Secondary Scholarship

2012, 2011

Tri - Merit Student

2011

First Prize of Shandong Provincial Mathematics Competition, Shandong Province, PRC

2009

LANGUAGES Mandarin Chinese (native), English (near native),

Hupa (research knowledge), Japanese (basic knowledge)

Programming

Programming Languages: Python, R, Prolog

SKILLS

OTHER EDUCATION LSA Linguistic Summer Institute

University of California, Davis

University of Chicago

2019
2015

Operating System: Mac, Unix/Linux, Windows

References

Kenji Sagae (sagae@ucdavis.edu)

Emily Tucker Prud'hommeaux (prudhome@bc.edu)

John Hawkins (jhawkins@ucdavis.edu) Emily Morgan (eimorgan@ucdavis.edu) Justin Spence (jspence@ucdavis.edu)