

Zoey (Ying) Liu

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| CONTACT INFORMATION | Department of Computer Science 140 Commonwealth Ave Boston College Chestnut Hill, MA 02467 | <i>Email:</i> zoey.liu@bc.edu <i>Phone:</i> +1 (818)486-3022 <i>Website:</i> https://zoeyliu18.github.io |
| RESEARCH INTERESTS | Computational linguistics; low-resource NLP; language typology; language documentation; cognitive development. | |
| EMPLOYMENT | Postdoctoral research fellow <i>Department of Computer Science, Boston College, Chestnut Hill, MA USA</i> Advisor: Emily Tucker Prud'hommeaux | 2020 - |
| | Software development research intern <i>Cognitive Computing Lab, Baidu, Beijing, PRC</i> | Summer 2019 |
| FELLOWSHIP | Computing Innovation Fellow <i>NSF / CRA</i> | 2021 - 2023 |
| EDUCATION | Ph.D., Linguistics <i>University of California, Davis, Davis, CA USA</i> Dissertation: Data-driven Crosslinguistic Modeling of Constituent Ordering Preferences Advisor: Kenji Sagae Other dissertation committee members: John A. Hawkins, Emily Morgan | 2016 - 2020 |
| | M.A., Linguistics <i>University of California, Davis, Davis, CA USA</i> Thesis: Linguistic Fingerprint: A Computational Investigation of Authorship Attribution for Short Text Documents Thesis committee: Raúl Aranovich (chair), Almerindo Eduardo Ojeda, Santiago Barreda | 2014 - 2016 |
| | B.A., Translation <i>Nankai University, Tianjin, PRC</i> | 2010 - 2014 |
| SUBMITTED WORK | Zoey Liu , Emily Prud'hommeaux and Justin Spence. Enhancing Documentation of Hupa with Automatic Speech Recognition. Paper submission to <i>The 5th Joint SIGHUM Workshop on Computational Linguistics for Cultural Heritage, Social Sciences, Humanities and Literature</i> . Zoey Liu and Emily Prud'hommeaux. Model Generalizability in Crosslinguistic Low-resource Settings. Journal submission to <i>Transactions of the Association for Computational Linguistics</i> . Natalia Levshina, Savithry Namboodiripad, Marc Allasonnière-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, and Natalia Stoyanova. Why we need a gradient approach to word order. Journal submission to <i>Linguistics: An Interdisciplinary Journal of the Language Sciences</i> . | |

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

Zoey Liu, Emily Prud'hommeaux and Justin Spence. Automated Morphological Analysis of Hupa. Abstract submission to *The Society for the Study of the Indigenous Languages of the Americas (SSILA)*.

JOURNAL ARTICLES **Zoey Liu**. A Multifactorial Approach to Crosslinguistic Constituent Orderings. To appear in *Linguistics Vanguard*.

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. 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. 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. 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. 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.

SOME CONFERENCE
PRESENTATIONS
(NO-PROCEEDINGS)

2022. **Zoey Liu**, Ria Upreti, Mathew A. Kramer, and Savithry Namboodiripad. Dependency length minimization does not affect acceptability of PP ordering in Hindi and English. To be presented at *The 96th Annual Meeting of the Linguistic Society of America*.

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..

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. 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.

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 Linguistics & 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, SSILA

Journal: Glossa, Linguistics Vanguard

HONORS AND AWARDS

University of California, Davis, Davis, CA USA

Outstanding Graduate Teaching Award, nominated

2017

Combined Summer Awards, Linguistics Graduate Group and Institute for Social Science 2015

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 SKILLS Programming Languages: Python, R, Prolog

OTHER EDUCATION **LSA Linguistic Summer Institute**
University of California, Davis 2019
University of Chicago 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)