

## Zoey (Ying) Liu

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<b>Contact Information</b>	Department of Linguistics 4131 Turlington Hall University of Florida Gainesville, FL 32611-5454	<i>Email:</i> liu.ying@ufl.edu <i>Website:</i> <a href="https://zoeyliu18.github.io">https://zoeyliu18.github.io</a> <i>Lab:</i> <a href="https://ufcompling.github.io">https://ufcompling.github.io</a>
<b>Academic Employment</b>	<b>Tenure-Track Assistant Professor</b> (Courtesy Assistant Professor, June - Dec 2022) <i>Department of Linguistics, University of Florida, Gainesville, FL USA</i>	Jan 2023 -
	<b>Postdoctoral Research Fellow</b> <i>Department of Computer Science, Boston College, Chestnut Hill, MA USA</i>	2020 - 2022
<b>Experience</b>	<b>Software Development Research Intern</b> <i>Cognitive Computing Lab, Baidu, PRC</i>	Summer 2019
<b>Education</b>	<b>Ph.D., Linguistics</b> <i>University of California, Davis, CA USA</i>	2016 - 2020
	<b>M.A., Linguistics</b> <i>University of California, Davis, CA USA</i>	2014 - 2016
	<b>B.A. (with honors), Translation</b> <i>Nankai University, Tianjin PRC</i>	2010 - 2014
<b>External Grants</b>	NSF 2341628, BCS. <i>Measuring the dynamic impact of personal social networks on language learning outcomes</i> (PI: Rossi; Role: Co-PI). 09/15/2024-08/31/2027. (\$598,444)	
	NSF 2127309 via Computing Research Association, CRF Computing Innovations Fellow Program. <i>Data-driven Evaluation for Crosslinguistic Low-resource NLP</i> . 09/01/2021-09/01/2023. (\$265,515)	
<b>Internal Grants</b>	New Language Training and Machine Learning as Tools to Measure and Promote Neurocognitive Resilience in Healthy Aging. University of Florida Cognitive Aging and Memory Pilot Grant Program (PI: Rossi; Role: Co-PI). 09/01/2023-08/31/2024. (\$19,225)	
<b>Other Awards</b>	Graduate Travel Award <i>University of California, Davis, CA USA</i>	2018
	Combined Summer Awards <i>University of California, Davis, CA USA</i>	2015
	Secondary Scholarship <i>Nankai University, Tianjin PRC</i>	2011 - 2013

For all publications and presentations, \* indicates students, advisees, or mentees; {} indicates equal contribution; CogSci proceedings are refereed but non-archival.

- Journal Articles**
2023. **Zoey Liu** and Emily Prud’hommeaux. [Data-driven Parsing Evaluations for Child-Parent Interactions](#). *Transactions of the Association for Computational Linguistics (TACL)* 2023; 11 1734–1753.
2022. **Zoey Liu**. [A Multifactorial Approach to Crosslinguistic Constituent Orderings](#). In *Linguistics Vanguard*.
2022. **Zoey Liu** and Emily Prud’hommeaux. [Data-driven Model Generalizability in Crosslinguistic Low-resource Morphological Segmentation](#). *Transactions of the Association for Computational Linguistics (TACL)* 10:393-413.
2022. Natalia Levshina, Savithry Namboodiripad ..... **Zoey Liu** ..... Anastasia Panova and Natalia Stoyanova. [Why we need a gradient approach to word order](#). In *Linguistics: An Interdisciplinary Journal of the Language Sciences*.
2020. **Zoey Liu**. [Mixed Evidence for Crosslinguistic Dependency Length Minimization](#). *STUF-Language Typology and Universals* 73(4), 605-633.
2018. Santiago Barreda and **Zoey Liu**. [Apparent-Talker Height is Influenced by Mandarin Lexical Tone](#). *The Journal of the Acoustical Society of America, EL* 143(2), EL61-EL66.
- Peer-Reviewed Proceeding Papers**
2024. **Zoey Liu** and Bonnie J. Dorr. [The Effect of Data Partitioning Strategy on Model Generalizability: A Case Study of Morphological Segmentation](#). In *Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*, 2851–2864.
2024. **Zoey Liu**, Nitin Venkateswaran\*, Eric Le Ferrand and Emily Prud’hommeaux. [How Important is a Language Model for Low-resource ASR?](#) In *Findings of the Association for Computational Linguistics (Findings of ACL)*.
2024. Allahsera Auguste Tapo\*, Eric Le Ferrand, **Zoey Liu**, Christopher Homan, and Emily Prud’hommeaux. [Leveraging Speech Data Diversity to Document Indigenous Heritage and Culture](#). In *Proceedings of the Annual Conference of the International Speech Communication Association (Interspeech)*.
2024. Skyler Jove Reese\*, **Zoey Liu**, Masoud Jasbi and Emily Morgan. [Frequency-Dependent Regularization in Mandarin Elastic Word Length](#). In *Proceedings of the 46th Annual Conference of the Cognitive Science Society (CogSci)*, 3917-3923.
2024. Rob van der Goot, **Zoey Liu** and Max Müller-Eberstein\*. [Enough is Enough! A Case Study on the Effect of Data Size for Evaluation Using Universal Dependencies](#). In *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*, 6167–6176.
2024. Nitin Venkateswaran\* and **Zoey Liu**. [Looking within the self: Investigating the Impact of Data Augmentation with Self-training on Automatic Speech Recognition for Hupa](#). In *Proceedings of the 7th Workshop on the Use of Computational Methods in the Study of Endangered Languages (ComputEL-7)*, 58-66.
2023. **Zoey Liu**, Justin Spence and Emily Prud’hommeaux. [Investigating data partitioning strate-](#)

- gies for crosslinguistic low-resource ASR evaluation. In *Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics (EACL)*, 123-131.
2023. Jordan Kodner, {Sarah Payne\*, Salam Khalifa\*} and **Zoey Liu**. [Morphological Inflection: A Reality Check](#). In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 6082–6101.
2023. Robbie Jimerson\*, **Zoey Liu** and Emily Prud’hommeaux. [An \(unhelpful\) guide to selecting the best ASR architecture for your under-resourced language](#). In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, 1008–1016.
2023. **Zoey Liu**, Lauren Lamdar\*, Stefanie Wulff and Kenji Sagae. [Double PP Constituent Ordering Preferences in English Early Child Language](#). In *Proceedings of the 45th Annual Conference of the Cognitive Science Society (CogSci)*, 317-324.
2023. Jordan Kodner, {Salam Khalifa\*, Sarah Payne\*} and **Zoey Liu**. [Re-Evaluating the Evaluation of Neural Morphological Inflection Models](#). In *Proceedings of the 45th Annual Conference of the Cognitive Science Society (CogSci)*, 3259-3267.
2023. **Zoey Liu**, Justin Spence and Emily Prud’hommeaux. [Studying the impact of language model size for low-resource ASR](#). In *Proceedings of the 6th Workshop on the Use of Computational Methods in the Study of Endangered Languages (ComputEL-6)*, 77-83.
2023. **Zoey Liu** and Stefanie Wulff. [The development of dependency length minimization in early child language: A case study of the dative alternation](#). In *Proceedings of the 2023 International Conference on Dependency Linguistics (Depling)*, 1-8.
2022. {**Zoey Liu**, Crystal Richardson\*}, Richard Hatcher and Emily Prud’hommeaux. [Not always about you: Prioritizing community needs when developing endangered language technology](#). In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*, 3933-3944.
2022. Duanchen Liu\*, **Zoey Liu**, Qingyun Yang\*, Yujing Huang and Emily Prud’hommeaux. [Evaluating the Performance of Transformer-based Language Models for Neuroatypical Language](#). In *Proceedings of the 29th International Conference on Computational Linguistics (COLING)*, 3412-3419.
2022. **Zoey Liu**, Justin Spence and Emily Prud’hommeaux. [Enhancing Documentation of Hupa with Automatic Speech Recognition](#). In *The 5th Workshop on the Use of Computational Methods in the Study of Endangered Languages (ComputEL-5)*, 187-192.
2022. **Zoey Liu**, Tiwa Eisape\*, Emily Prud’hommeaux and Joshua Hartshorne. [Data-driven Crosslinguistic Syntactic Transfer in Second Language Learning](#). In *Proceedings of the 44th Annual Conference of the Cognitive Science Society (CogSci)*, 1903-1911.
2022. **Zoey Liu**, Ria Upreti\*, Mathew A. Kramer\* and Savithry Namboodiripad. [Does One Size Fit all in Crosslinguistic Dependency Length Minimization?](#) In *Proceedings of the 44th Annual Conference of the Cognitive Science Society (CogSci)*, 2066-2073.
2022. Khuyagbaatar Batsuren, Omer Goldman ..... **Zoey Liu** ..... Reut Tsarfaty and Ekaterina Vylomova. [UniMorph 4.0: Universal Morphology](#). In *The 13th Language Resources and Evaluation Conference (LREC)*, 840-855.
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 (SCiL)*, 264-274.

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)*, 90-101.

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)*, 156-165.

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 (CogSci)*, 2957-2963.

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 (Findings of ACL)*, 957-967.

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 SRW)*, 284-291.

2021. Tiago Pimentel, Maria Ryskina ..... **Zoey Liu** ..... Ben Ambridge and Ekaterina Vylomova. **SIGMORPHON 2021 Shared Task on Morphological Reinflection: Generalization Across Languages**. In *Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology (SIGMORPHON)*, 229-259.

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 (CogSci)*, 2990-2996.

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)*, 2140-2150.

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)*, 33-45.

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**

2024. **Zoey Liu**, Haiyin Yang\*, Jarrod Cruz\* and Stefanie Wulff. **Modeling the Dative Alternation in English Early Child Language**. *Society for Computation in Linguistics (SCiL)* 7(1), 338-342.

2021. **Zoey Liu** and Emily Morgan. **Frequency-dependent Regularization in Syntactic Constructions**. In *Proceedings of The Society for Computation in Linguistics (SCiL)*, 387-389.

2021. Alex Kramer\* and **Zoey Liu**. **A Data-driven Approach to Crosslinguistic Structural Biases**.

In *Proceedings of The Society for Computation in Linguistics (SCiL)*, 344-346.

2019. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. In *Proceedings of The Society for Computation in Linguistics (SCiL)*, 306-309.

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 (SCiL)*, 189-192.

#### **Selected Talks & Presentations**

2024. What can machine learning tell us about second language acquisition? Wei Li, **Zoey Liu**, Joshua Hartshorne. Poster presentation at *Architectures and Mechanisms of Language Processing (AMLaP)*.

2024. Samantha Chiu, Leo Moore, **Zoey Liu**, and Ethan Kutulu. Using Computational Model to Study Accent Adaptation: A Tutorial. Poster presentation at the Acoustic Society of America.

2024. Leo Moore, Samantha Chiu, **Zoey Liu**, and Ethan Kutulu. Revisiting Rapid Accent Adaptation with Computational Modeling. Poster presentation at the Acoustic Society of America.

2024. **Zoey Liu**, Haiyin Yang\*, Jarrod Cruz\* and Stefanie Wulff. Modeling the Dative Alternation in English Early Child Language. Poster presentation at *The Society for Computation in Linguistics (SCiL)*.

2024. Brennan Gonering\* and **Zoey Liu**. Real world event schemas offer modality-independent conceptual bases for verb argument structures. Poster presentation at the 46th Annual Conference of the Cognitive Science Society (CogSci).

2024. **Zoey Liu**. Data-driven Approach to Cross-linguistic Variation in Languages, Machines ... and Data. Invited Keynote at The 23rd Meeting of the Texas Linguistics Society (TLS).

2023. **Zoey Liu**, Emily Prud'hommeaux and Joshua Hartshorne. Uncovering cross-linguistic morphosyntactic transfer in second language learning. Oral presentation at Boston University Conference on Language Development (BUCLD).

2023. **Zoey Liu**, Emily Prud'hommeaux and Joshua Hartshorne. Uncovering cross-linguistic morphosyntactic transfer in second language learning. Oral presentation at Many Paths to Language (MPaL).

2023. **Zoey Liu**, Ria Upreti\*, Mathew A. Kramer\* and Savithry Namboodiripad. Does One Size Fit all in Crosslinguistic Dependency Length Minimization? Oral presentation at *The 16th International Cognitive Linguistics Conference*.

2022. **Zoey Liu**, Tiwa Eisape\*, Emily Prud'hommeaux and Joshua Hartshorne. Data-driven Crosslinguistic Syntactic Transfer in Second Language Learning. Poster presentation at *Architectures and Mechanisms of Language Processing (AMLaP)*.

2022. **Zoey Liu**. Data-driven Evaluation for Crosslinguistic Low-resource NLP. Poster presentation at *The Networking and Information Technology Research and Development 30th Anniversary & CIFellows Symposium*.

2022. Gwendolyn Rehrig, Madison Barker\*, Beverly Cotter\*, **Zoey Liu**, Harvey Qiu\* and Fernanda Ferreira. Trade-offs between memory retrieval and planning in language production. Poster presentation at *The 35th Annual Conference on Human Sentence Processing (HSP)*.

2022. **Zoey Liu**, Emily Prud'hommeaux and Justin Spence. Automated Morphological Analysis of Hupa. Oral presentation at *The Society for the Study of the Indigenous Languages of the Americas (SSILA)*.
2022. **Zoey Liu**, Ria Upreti\*, Mathew A. Kramer\* and Savithry Nambodiripad. Dependency length minimization does not affect acceptability of PP ordering in Hindi and English. Oral presentation at *The 96th Annual Meeting of the Linguistic Society of America (LSA)*.
2021. **Zoey Liu**. [A multifactorial approach to constituent orderings](#). Oral presentation at *The 34th Annual CUNY Human Sentence Processing Conference*.
2021. **Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Syntactic Constructions. Poster presentation at *The Society for Computation in Linguistics (SCiL)*.
2021. Alex Kramer\* and **Zoey Liu**. A Data-driven Approach to Crosslinguistic Structural Biases. Poster presentation at *The Society for Computation in Linguistics (SCiL)*.
2021. **Zoey Liu**. Data-driven Approach to Gradience in Languages and Machines. Invited. Language and Cognition, Harvard University, November 9th.
2021. **Zoey Liu**. A Data-driven Approach to Structural Variation. Invited. Department of Linguistics, University of California, Davis, January 11th.
2020. **Zoey Liu**. Data-driven Crosslinguistic Modeling of Constituent Ordering Preferences. Invited. TedLab, Department of Brain and Cognitive Sciences, MIT, October 6th.
2020. **Zoey Liu**. Frequency-dependent Regularization in Constituent Ordering Preferences. Invited. NERT, Department of Linguistics, Georgetown University, March 31st.
2020. **Zoey Liu**. The Relationship between Word Order Flexibility and Dependency Length Minimization. Oral presentation at *53rd Annual Meeting of the Societas Linguistica Europaea (SLE)*.
2020. **Zoey Liu** and Emily Morgan. Item-specific Regularization in Word Order Preferences. Poster presentation at *The 11th International Conference on Construction Grammar* (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*.
2020. **Zoey Liu**. Crosslinguistic Extent of Dependency Length Minimization. Poster presentation at *The 33rd Annual CUNY Human Sentence Processing Conference*.
2020. **Zoey Liu**. Do Arguments Appear Closer Crosslinguistically? Poster presentation at *The 33rd Annual CUNY Human Sentence Processing Conference*.
2019. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. Poster presentation at *The Society for Computation in Linguistics (SCiL)*.
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 (LSA)*.
2018. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. Oral presentation at *California Meeting on Psycholinguistics*.

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 Linguistics (SCiL)*.

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

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*.

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 (SSILA)*.

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

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

2016. **Zoey Liu**. The Role of Function Words: An Empirical Study of Text Distance Measure Performance. Oral presentation at *The Association for Linguistic Evidence*.

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*.

## Teaching

### Instructor

*University of Florida, Gainesville, FL USA*

- Programming for Linguists
- Introduction to Computational Linguistics
- All Computational Models are Wrong
- Advanced Statistics

*University of California, Davis, CA USA*

- Introduction to Linguistics
- ESL

### Teaching Assistant

*University of California, Davis, CA USA*

- Computational Linguistics
- Corpus Linguistics & Text Analysis
- Linguistic Analysis I
- Introduction to Linguistics

## Advising / Mentoring

### Graduate committees / advising

Joshua Higdon (Spanish & Portuguese)

Haiyin Yang (Linguistics)  
 Nitin Venkateswaran (Linguistics)  
 Godfred Agyapong (Linguistics)  
 Chathuri Jayaweera (Computer Science)  
 Alexis Davis (Linguistics)  
 Yihan Chen (Linguistics)

#### **Undergraduate supervision**

Kaitlyn McGowan (Linguistics & English), 2023-2024, Honor thesis in Linguistics  
 Ethan E. Eschrich (Math & Linguistics), 2024-present  
 Nathaniel Parkes (Linguistics & Computer Science), 2023-present  
 Mikaela Boelkins (Linguistics & Arabic), 2023-2024  
 Jarrod Cruz (Linguistics & Anthropology), 2022-2023  
 Lauren Prieto (Linguistics & Computer Science), 2023  
 Daniel J. Cox (Computer Science), 2023

#### **Service**

##### **Local chair**

EMNLP 2024

##### **Senior area chair**

COLING 2025

##### **Area chair**

ACL 2023, EACL 2024, NAACL 2024, ACL 2024, ARR

##### **Conference reviewing / committees**

EMNLP, AmericasNLP, SIGTYP, ACL, CoNLL, SSILA, SCiL, SLPAT, ComputEL, CogSci, Inter-speech, EACL, BAE, NLP for Field Linguistics, LREC, ACL Rolling Review, HSP, CAWL

##### **Ad-hoc Journal reviewing**

Linguistics Vanguard, Language Resources and Evaluation, Languages, Bilingualism: Language and Cognition, TACL, Syntax, Dialogue and Discourse

##### **Other reviewing**

National Science Foundation

##### **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 (Choinumni) May 27-June 2, 2024

Linguistic partner & Technical service June - July, 2020

Linguistic partner (Patwin) June 3-9, 2018

#### **OTHER EDUCATION LSA Linguistic Summer Institute**

University of California, Davis 2019

University of Chicago 2015