# Zoey (Ying) Liu

CONTACT Department of Computer Science Email: yiliu@ucdavis.edu
INFORMATION 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.

EDUCATION University of California, Davis, CA USA

Ph.D., Linguistics 2016 - 2020

Dissertation: Data-driven Crosslinguistic Modeling of Constituent Ordering Preferences

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

M.A., Linguistics 2014 - 2016

Thesis: Linguistic Fingerprint: A Computational Investigation of Authorship Attribution for Short Text Documents

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

Nankai University, Tianjin, PRC

B.A., Translation 2010 - 2014

OTHER EDUCATION LSA Linguistic Summer Institute

University of California, Davis
University of Chicago
2019

Industry Software Development Research Intern

EMPLOYMENT Cognitive Computing Lab, Baidu, Beijing, China July - October 2019

Supervisor: Dr. Mingming Sun and Dr. Ping Li

Project: Design semantic graph representations for English and Mandarin Chinese to facilitate open

information extraction and knowledge base construction

Submitted **Zoey Liu**. The Crosslinguistic Relationship between Ordering Flexibility and Dependency Length Minimization: A Data-Driven Approach. Paper submission to *The Society for Computation in Linguistics (SCiL) 2021*.

**Zoey Liu** and Emily Morgan. Frequency-dependent Regularization in Syntactic Constructions. Abstract submission to *The Society for Computation in Linguistics (SCiL) 2021.* 

Alex Kramer and **Zoey Liu**. A Data-driven Approach to Crosslinguistic Structural Biases. Abstract submission to *The Society for Computation in Linguistics (SCiL) 2021*.

William Dyer, Richard Futrell, **Zoey Liu** and Gregory Scontras. Modeling Cross-linguistic Adjective Order with Information Gain. Abstract submission to *The Society for Computation in Linguistics* (SCiL) 2021.

Open-Domain Information Extraction Construction Methods and System. China Patent #202000013489. With Mingming Sun, Wenyue Hua, Xin Wang, Kangjie Zheng and Ping Li. Cognitive Computing Lab, Baidu.

## JOURNAL ARTICLES **Zoey Liu**. (in press). 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

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 2019)*.

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 EXTENDED ABSTRACTS

2019. **Zoey Liu**. Quantifying Structural and Lexical Constraints in PP Ordering Typology. In *Proceedings of The Society for Computation in Linguistics (SCiL) 2019* (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 (SCiL) 2018* (extended abstract).

#### INVITED TALKS

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

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.

#### RESEARCH EXPERIENCE

#### University of California, Davis, Davis, CA USA

Graduate Student Researcher

Summer 2020

Supervisor: Dr. Fernanda Ferreira

Project: Corpus analyses of language production and linearization strategies in real-world scene descriptions

Graduate Student Researcher

Summer 2020

Supervisor: Dr. Emily Morgan

Project: Applying the Maze task to online processing of binomial expressions in English

 $Graduate\ Student\ Researcher$ 

Winter 2016 - Summer 2017

Supervisor: Dr. Justin Spence

Project: Understanding evidentiality and other grammatical phenomena through the expanded doc-

umentation of Hupa, National Science Foundation.

Graduate Student Researcher

Summer 2015

Supervisor: Budget & Institutional Analysis

Project: Statistical analysis of large-scale Career Pipeline survey data

Research Assistant

Fall 2014 - Winter 2015

Supervisor: Dr. David Corina

Project: The role of movement in memory of signs and ASL lexical processing

#### 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 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

CoNLL 2020: The SIGNLL Conference on Computational Natural Language Learning

Glossa: A Journal of General Linguistics

#### 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 Skills Programming Languages: Python, R, Prolog Operating System: Mac, Unix/Linux, Windows

REFERENCES Kenji Sagae (sagae@ucdavis.edu)

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

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