Borui Zhang

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Education

University of Minnesota, Twin Cities　　　Minneapolis, MN
Ph.D. Candidate　　　September 2016 – August 2021
Major in Linguistics, Minor in Computer Science
Advisor: Dr. Claire Halpert

University of Minnesota　　　Minneapolis, MN
M.A. in Linguistics　　　September 2014 – June 2016
Advisor: Dr. Tim Hunter

Tianjin Foreign Studies University　　　Tianjin, China
B.S. in Educational Technology　　　August 2007 – July 2011
Mentor: Dr. Lizhi Huang

Academic experience

Teaching Assistant
Institute of Linguistics (University of Minnesota)
LING 3001: Introduction to Linguistics
Spring2021 Fall2020 Spring2020 Spring2019 Spring2018 Fall2018 Fall2017
Leading weekly discussion sections; design section materials and activities; report students' performance to lecturer; classroom assisting; grading; mentoring; giving guest lectures
Grader role in:
LING 4202: Syntax I　　　Spring 2016 Fall 2016
LING 4205: Semantics　　　Fall 2017
LING 4302w: Phonology I　　　Spring 2018

MnDRIVE Graduate Scholar　　　Summer 2019
College of Science and Engineering (University of Minnesota)
Taught basic Robotic courses to K-12 students (particularly from underrepresented groups to STEM disciplines) courses including programming Ozobots, Inkscape graphic editor, and Intro to virtual reality

Web Design Instructor, Asian Media Access　　　January - June 2019
HTML5 & CSS
weekly in-class lecture online meeting with practice. Aliquam volutpat est vel massa. Sed dolor lacus, imperdiet non, ornare non, commodo eu, neque.

Chinese Language Tutor, Chinese Flagship program (University of Minnesota) Spring 2015

Chinese Writing and Speaking

Provided outside-of-classroom help to undergraduate students improve their oral Chinese skills in pronunciations, tones, vocabulary, and pragmatics in real life conversations, and writing skills in grammar checking and word choices in essay writings

Publications

The Multiple Mechanisms for Mandarin Sluices
Co-authored with Jason Overfelt
Proceedings of GLOW-in-Asia, 2019

Sluicing-like Constructions in Kathmandu Newari (Nepal Bhasa)
Proceedings of CLS 54th 2018

The Multiple Mechanisms for Mandarin Sluices
Co-authored with Jason Overfelt
Proceedings of GLOW-in-Asia, 2019

Embedding, Covert Movement, and Intervention in Newari
Co-authored with Dustin Chacón
Proceedings of LSA 2018

Entropy Reduction Prediction on Mandarin Chinese Relative Clauses
Processsdings of 2016 Buckeye East Asian Linguistics Forum 2

Presentations

A corpus-based approach to exploring embedding verbs in Nepal Bhasa
November 2020
(Oral) Linguistics Colloquium (University of Minnesota)

Complementation in Nepal Bhasa September 2019
(Oral) Linguistics Colloquium Student Summer Research (University of Minnesota)

Research work in computational linguistics February 2019
(Lightning talk) The ACM-W Celebration of Women in Computing in the Upper MidWest (MinneWIC)

Complementation in Newari March 2017
(Oral) The seventh Formal Approaches to South Asian Languages (FASAL) workshop, MIT, Boston

Entropy Reduction Prediction on Mandarin Relative Clauses Oct 2016

(Oral) Semantics and Syntax Workshop of the American Midwest and Prairies, Northwestern University, Evanston, Illinois

Embedding Structures in Mandarin Chinese   April 2015
(Oral) Semantics Workshop of the American Midwest and Prairies (SWAMP)
Spring Research Day, Center for Cognitive Sciences, University of Minnesota

Industry experience   **Natural Language Understanding Specialist**   January - April 2021
Cerence Inc. Cantonese language Team   (remote) Burlington, MA
Created weighted context-free grammar and dictionaries (canonical/surface style); generate utterances for training automotive conversational AI model; train models using grid computing; validated final annotated data with by running stat coverage test, direct-correction, and regex-filters

Computational Linguist Research Intern   January - August 2017
United Language Group R&D   Minneapolis, MN
Built parallel corpora for machine translations in Chinese, Japanese, and Korean; segmented the data and evaluated the models (rule-and-NN based), using Moses, NLTK, NLPIR

Language consultant   2017
Fallon Worldwide Advertising Team   Minneapolis, MN
Provided semantic knowledge to the design team, and created a semantic entertainment program; used Twitter API and Python and implemented a program that captures keywords in customers' tweets

Skills   **Programming**
Python (lib:TensorFlow, PyTorch) R, Matlab, Haskell, Bash, JavaScript, Git, HTML, CSS, Linux

Machine Learning Certification (verified on Linkedin)
Sequence Models / NLP in TensorFlow / TensorFlow for AI / Structuring ML project

Languages
Mandarin (fluent), Cantonese (advanced), Korean (phonology & morphology)
Japanese (project), Nepal Bhasa (research focus), Somali (class experience)

Honors and
scholarships
Summer Research scholarship (University of Minnesota)   2019
NASSLLI 2016 Travel Grant (Rutgers University)   2016
ESSLLI Travel Grant (European Association for Computer Science Logic) 2015

Volunteer Service   Computational Linguistics Reading Group Leader   2019-present
International Latin Dance Club Officer   2019-present

	Linguistics Colloquium Student Organizer	2015-2018
	Journal of Healthcare Informatics Research Review	2018

Memberships	Linguistics Society of America
	Use of Computational Methods in the Study of Endangered Languages
	Women in Computer Science