MINGYUE HUO 霍明月 /miŋu@ xuə/

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Education

University of Illinois Urbana-Champaign PhD in Linguistics (GPA: 4.0/4.0)	May 2026 (expected), IL, USA
University of Illinois Urbana-Champaign MA in East Asian Languages and Cultures (GPA: 4.0/4.0)	May 2022, IL, USA
Shanghai International Studies University BA in Japanese, International Economics and Trade (GPA: 3.85/4.0)	June 2020, Shanghai, China

Exchange, Hosei University

Aug 2018 – Jan 2019, Tokyo, Japan

RESEARCH INTERESTS

speech intelligibility, source separation, target speech extraction, speech synthesis, keywords spotting

PUBLICATIONS

Beyond Speaker Identity: Text Guided Target Speech ExtractionMingyue Huo, Abhinav Jain, Cong Phuoc Huynh, Fanjie Kong, Pichao Wang, Zhu Liu, Vimal BhatSubmitted to ICASSP 2025[Demo]

Release from Same-talker Speech-on-speech Masking: More Effects than Masker's Intelligibility Mingyue Huo, Yinglun Sun, Dan fogerty, Yan Tang Submitted to Journal of the Acoustical Society of America (In revision)

Quantifying Informational Masking due to Masker Intelligibility in Same-talker Speech-in-speech Perception

Mingyue Huo, Yinglun Sun, Dan fogerty, Yan Tang INTERSPEECH 2023 [PDF]

Towards Automating the Assessment of Teachers' Teaching Emotions in Preschool Classrooms Mingyue Huo, Yan Tang 20th International Congress of Phonetic Sciences (ICPhS) 2023 [PDF]

PRESENTATIONS

Aligning Speech-Hum Pairs using Dynamic Time Warping Mingyue Huo, Yan Tang Midwest Speech and Language Days (MSLD) 2024, University of Michigan, Ann Arbor

What makes listening comprehension difficult?: A feature-based machine learning approach to understanding item difficulty

Huiying Cai, Yulin Pan, Ping-lin Chuang, **Mingyue Huo**, Xun Yan Language Testing Research Colloquium (LTRC) 2024, Innsbruck, Austria

Constructing a Phonetically-Balanced Low-Predictable Speech Corpus for Mandarin Chinese Mingyue Huo, Yan Tang

28th Midcontinental Phonetics and Phonology Conference (MidPhon28), 2023, Purdue University

Using Praat Scripts for Data Processing and Annotation Phonetics and Phonology Lab Workshop, 2022, UIUC

Applied Scientist Intern at Amazon Prime Video

- Developed a text-guided speech extraction model, integrating audio and text clues to enhance target speech extraction without traditional audio identifiers. Paper submitted to ICASSP 2025.
- Created and evaluated the model using a newly extended dataset featuring speech mixture text description pairs. Average improvement in SI-SDR is 16 dB.

Linguist Intern at ByteDance (TikTok) AI-Lab

- Developed datasets for Mandarin and Japanese Text-to-Speech and Singing Synthesis AI models, designed annotation pipelines, G2P rules, and created test sets.
- Evaluated AI models, providing feedback using Mean Opinion Score and A/B testing to refine synthesis naturalness and expressiveness.
- Provided Python scripts for speech collection, text normalization, and audio segmentation; enhanced interdisciplinary collaboration with musicians and visual professionals to improve AI model development.

AWARDS

• C.W. Kim Research Award in Linguistics – UIUC	May 2024
• Linguistics Student Leadership Award – UIUC	May 2024
• Midwest Speech and Language Days Travel Award – University of Michigan	April 2024
• Departmental Conference Travel Award – UIUC	November 2023
• Best Japanese TA – UIUC	May 2022
• EALC Summer Research Fellowship – UIUC	May 2021
• Teachers Ranked as Excellent by Their Students – UIUC	2021 Fall and 2020 Fall
TEACHING	
• LING402 TA, Tools and Tech Speech and Language Processing	2022 FA, 2024 FA
• LING406 TA, Introduction to Computational Linguistics	2023 SF
• LING446 TA, Fundamentals for Speech Signal Processing and Analysis	2023 SP, 2024 SF
• JAPN201 Lecturer, Elementary Japanese I	2020 FA, 2021 FA
• JAPN202 Lecturer, Elementary Japanese II	2021 SP, 2022 SP
Community Service	
• Co-chair at Illinois Language And Linguistics Society 16 (ILLS16)	March 2024
• Student Volunteer at NeurIPS 2023	December 2023
• Reviewer at Illinois Language And Linguistics Society 15 (ILLS15)	March 2022
• Student Volunteer at INTERSPEECH 2021	August 2021

Skills

- Language: Mandarin (Native), English (Advanced), Japanese (Advanced N1), Cantonese (Beginner)
- Software: Praat, Audacity, Adobe Audition, Adobe Premiere, Montreal Forced Aligner
- Programming: Python, MATLAB, Shell, R, IAT_EX
- Framework & Library: PyTorch, HTK, Kaldi, NumPy, SciPy, Torchaudio, librosa, soundfile, Matplotlib
- Highlighted Coursework: Digital Signal Processing (A+), Optimization (A), Psychoacoustics (A), Phonetics (A+), Phonology (A), Formal Semantics (A+), Machine Learning (A), Natural Language Processing (A)

Dec 2019 – July 2021, Shanghai, China