

# MINGYUE HUO 霍明月 /mɪŋjʊə huɔ/

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## EDUCATION

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### University of Illinois Urbana-Champaign

*PhD in Linguistics (GPA: 4.0/4.0)*

*MA in East Asian Languages and Cultures (GPA: 4.0/4.0)*

Urbana, IL

*May 2027 (expected)*

*May 2022*

### Shanghai International Studies University

*BA in Japanese (GPA: 3.85/4.0)*

Shanghai, China

*June 2020*

### Hosei University

*Exchange*

Tokyo, Japan

*Aug 2018 – Jan 2019*

## RESEARCH INTERESTS

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

## PUBLICATIONS

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### Beyond Speaker Identity: Text Guided Target Speech Extraction

Mingyue Huo, Abhinav Jain, Cong Phuoc Huynh, Fanjie Kong, Pichao Wang, Zhu Liu, Vimal Bhat  
ICASSP 2025 [\[PDF\]](#) [\[Demo\]](#)

### Iterative Nash Policy Optimization: Aligning LLMs with General Preferences via No-Regret Learning

Yuheng Zhang, Dian Yu, Baolin Peng, Linfeng Song, Ye Tian, Mingyue Huo, Nan Jiang, Haitao Mi, Dong Yu  
ICLR 2025

### Release from Same-talker Speech-on-speech Masking: Effects of Masker Intelligibility and Other Contributing Factors

Mingyue Huo, Yinglun Sun, Dan Fogerty, Yan Tang  
Journal of the Acoustical Society of America, 2024 [\[PDF\]](#)

### 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

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### 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

## INDUSTRY EXPERIENCE

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### Applied Scientist Intern at Amazon Prime Video

Summer 2024, Seattle, WA

- 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

Dec 2019 – July 2021, Shanghai, China

- 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

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- 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

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- **LING402** TA, Tools and Tech Speech and Language Processing 2022 FA, 2024 FA
- **LING406** TA, Introduction to Computational Linguistics 2023 SP
- **LING446** TA, Fundamentals for Speech Signal Processing and Analysis 2023 SP, 2024 SP
- **JAPN201** Lecturer, Elementary Japanese I 2020 FA, 2021 FA
- **JAPN202** Lecturer, Elementary Japanese II 2021 SP, 2022 SP

## COMMUNITY SERVICE

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- **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

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- **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,  $\LaTeX$
- **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)