

HUANG Po-Husan

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EDUCATION


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|-------|-----------|--|
| Ph.D. | 2024– | University of Southern California, CA Linguistics |
| M.A. | 2020–2023 | National Taiwan University, Taipei, TW Linguistics Thesis: Production and perception of tonal coarticulation in Taiwan Mandarin and Taiwan Southern Min |
| B.A. | 2015–2020 | National Chengchi University, Taipei, TW English, French (majors) |

AWARDS & HONORS


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|---|-----------|
| Taiwan Global Fellowship | 2024–2027 |
| Ministry of Education, Taiwan | |
| Graduate School Fellowship | 2024–2025 |
| Dornsife College of Letters, Arts and Sciences, USC | |
| Dean's List | 2017 |
| National Chengchi University | |


PUBLICATIONS Google Scholar


Journal Articles


Huang, Po-Hsuan & Her, One-Soon. (2024). On a dichotomy of question types: The case of Paiman. *Concentric: Studies in Linguistics*, 50(1), 24–56. <https://doi.org/10.1075/consl.00033.her> [Poster] 

Peer-reviewed Proceedings


Huang, Po-Hsuan & Shao, Hsuan-Lei. (2024a). Applying mutual information to extract legal domain-specific collocation nouns in Mandarin. *Proceedings of the Thirtieth Annual Meeting of the Association for Natural Language Processing*, 1329–1333 [Poster] 

Chiu, Chenhao, Huang, Jian-Zhi, & Huang, Po-Hsuan. (2023). Perceptual identification of high vowels in Taiwan Mandarin. *The Journal of the Acoustical Society of America*, 154, A35 [Poster] 

Chiu, Chenhao & Huang, Po-Hsuan. (2023). Lip postures of high vowels in Taiwan Mandarin. In R. Skarnitzl & J. Volín (Eds.), *Proceedings of the 20th international congress of phonetic sciences* (pp. 1052–1056). Guarant International [Poster] 



Huang, Po-Hsuan & Chiu, Chenhao. (2023a). Perception of coarticulated tones in Taiwan Mandarin and Taiwan Southern Min. In R. Skarnitzl & J. Volín (Eds.), *Proceedings of the 20th international congress of phonetic sciences* (pp. 446–450). Guarant International [Poster] 

Presentations

Huang, Po-Hsuan & Breiss, Canaan. (Under review). What's in a name? Phonetic and phonological conditioning of personal names in Taiwan Mandarin. *Penn Linguistics Conference (PCL 49)* [Poster] 

- Chiu, Chenhao, Chang, Cheng-Hsiang, Huang, Jian-Zhi, & **Huang, Po-Hsuan**. (2024–May 17). Enhancing lip contrasts between /u/ and /y/ in Taiwan Mandarin. *The 13th International Seminar on Speech Production (ISSP 2024)* 
- Chiu, Chenhao, **Huang, Po-Hsuan**, & Huang, Jian-Zhi. (2024–June 25). Coordination of tongue and lips in Taiwan Mandarin high rounded vowels. *Ultrafest XI: Conference on Ultrasound Imaging for Speech and Language Research* [Poster] 
- Huang, Po-Hsuan**. (2024b–May 17). Production and perception of tonal coarticulation through computational communication simulation. *The 13th International Seminar on Speech Production (ISSP 2024)* 
- Huang, Po-Hsuan** & Chiu, Chenhao. (2023c–May 27). Tonal coarticulation in Taiwan Mandarin and Taiwan Southern Min. *Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HisPhonCog)* 
- Huang, Po-Hsuan** & Liu, Yi-Chen. (2023). Ultrasonic-and-optical-imaging-assisted automated speech correctness judgment model. *Tunghai International Conference on Second Language Teaching and Research (SLTR.THU)* [Poster] 
- Wang, Chi-Wei, Chen, Bo-Wei, **Huang, Po-Hsuan**, Lai, Ching-Hung, & Chiu, Chenhao. (2023–May 27). Evaluating forced alignment for under-resourced languages: A test on Sqliq Atayal. *Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HisPhonCog)* 
- Huang, Po-Hsuan** & Chiu, Chenhao. (2022a–November 4). Articulation and syllabic affiliation of prenuclear glide in Taiwan Mandarin. *Ultrafest X: Conference on Ultrasound Imaging for Speech and Language Research* [Poster] 
- Huang, Po-Hsuan** & Chiu, Chenhao. (2022b–January 9). Vowel-glide distinction in high vocoid diphthong structures in Sqliq Atayal: An ultrasound and acoustic study. *Annual Meeting of the Linguistic Society of America (AML)* 
- Huang, Po-Hsuan**, Lai, Ching-Hung, & Liu, Te-Hsin. (2022–September 25). On the interaction between L1 Transfer and universal constraints – Evidence from the acquisition of Mandarin tones by French speakers. *North American Conference on Chinese Linguistics (NACCL)* [Poster] 
- Huang, Po-Hsuan**. (2021). Vowel-glide distinction in high vocoid diphthong structures in Sqliq Atayal: An ultrasound and acoustic study. *National Conference on Linguistics (NCL)* [Poster] 
- Huang, Po-Hsuan** and Her, One-Soon. (2021–October 16). On a two-way distinction of questions in Paiwan. *Young Scholars' Symposium on Taiwan Languages (YSSTL)* [Poster] 

Working papers

- Huang, Po-Hsuan**. (2024a). Informativity and its allocation in tonal coarticulation in Taiwan Southern Min and Taiwan Mandarin [Poster] 
- Huang, Po-Hsuan** & Shao, Hsuan-Lei. (2024b). Comparison between the structures of word co-occurrence and word similarity networks for ill-formed and well-formed texts in Taiwan Mandarin. *arXiv*. <https://doi.org/10.48550/arXiv.2408.09404> [Poster] 

RESEARCH EXPERIENCE

| | | |
|-------------------------|------------------------------|---|
| Feb, 2024 –Jun, 2024 | Full-time Research Assistant | Natural Language Processing and Sentiment Analysis Lab Institute of Information Science, Academia Sinica (PI: Dr. Lun-Wei Ku) |
| Jul, 2021 –Feb, 2024 | Research Assistant | Speech Behavior and Science Lab Graduate Institute of Linguistics, National Taiwan University (PI: Dr. Chenhao Chiu) |
| Jul, 2021 –Feb, 2024 | Research Assistant | Laboratory of Computational China Studies Research Center for Digital Law, National Taiwan Normal University (PI: Dr. Hsuan-Lei Shao) |
| Jul, 2021 –Oct, 2022 | Research Assistant | Graduate Program of Teaching Chinese as a Second Language, National Taiwan University (PI: Dr. Te-Hsin Liu) |
| Jul, 2021 –Oct, 2022 | Research Assistant | Graduate Institute of Linguistics, National Chengchi University (PI: Dr. One-Soon Her) |

TEACHING

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|---|--------------------|---|
| <i>Spring semester, 2023</i> | Teaching Assistant | Technology of Brain Science Graduate Institute of Brain and Mind Sciences, National Taiwan University (Lecturers: Prof. Joshua G.O. Soo & Prof. Chia-Lin Lee) |
| <i>Spring semester, 2022/2023</i> | Teaching Assistant | Uncovering Languages Graduate Institute of Linguistics, National Taiwan University (Lecturer: Prof. Chenhao Chiu) |
| <i>Fall semester, 2020/ Spring semester, 2021</i> | Teaching Assistant | Freshman English Department of Foreign Languages and Literatures, National Taiwan University (Lecturer: Prof. Prof. Wen-Hsien Hsu) |

INVITED TALKS

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| “Implementation of Praat through Python” Department of Linguistics, USC, CA | <i>Nov, 2024</i> |
| “Electroglottography in linguistics research with Python” Institute of Linguistics, Academia Sinica, Taipei | <i>Mar, 2024</i> |
| “Face extraction with MediaPipe in linguistics research” Speech Behaviours and Speech Sciences In-class Talk, NTU, Taipei | <i>Oct, 2024</i> |
| “Face extraction with MediaPipe in linguistics research” MultiMoco NTU Workshop, NTU, Taipei | <i>Nov, 2022</i> |
| “Using PCA and LDA for ultrasound image classification” The 1 st NTU GIL Ultrasound Workshop, NTU, Taipei | <i>Nov, 2021</i> |

ACADEMIC SERVICE

Reviewer

Annual Meeting of the Association for Computational Linguistics (ACL), Bangkok

2024

ACTIVITES

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| Organizer | <i>Feb–Aug, 2024</i> |
| Education Camp for Rural Schools, NCCU | |
| President of Activity | <i>Jul, 2017–Jun, 2018</i> |
| Changhua Student Association, NCCU | |
| Vice organizer | <i>Sep, 2016–Jan, 2017</i> |
| Education Camp for Rural Schools, NCCU | |
| Leading actor | <i>May, 2017</i> |
| Concours universitaire national de théâtre, Taiwan, NCCU | |
| Project manager | <i>Aug, 2016</i> |
| Education Camp for Rural Schools, NCCU | |
| Voluntary after-school tutor | <i>Spring semester, 2016</i> |
| Wanhsing Elementary School, Taipei | |

SKILLS & KNOWLEDGE

Languages Mandarin (native); Southern Min (native); English (advanced); French (advanced); Spanish (basic)

Programming languages/software Python; R; Javascript; Praat Script; Psychopy; E-Prime; Matlab; SQL; bash; Swift

Packages/modules

- Data analyses: numpy; scikit-learn; statsmodels; pandas; network; lme4
- Visualization: matplotlib; seaborn; Plotly
- Image processing: OpenCV; MediaPipe; FFmpeg
- Acoustic analyses: parselmouth; wave
- Text mining: jieba; ckip; gensim
- Others: tensorflow; PyTorch; tkinter; PyPI; pickle; cython; git

Statistical analyses fundamental analyses (t-test, ANOVA, etc.); dimensionality reduction (PCA, LDA, t-SNE, etc.); regression/modeling (linear/logistic regression, LMM, GLM, GAMM, etc.), cluster analysis (hierarchical; K-Means, etc.); correlation-related analyses (fundamental correlation analyses, CCA, Apriori Algorithm, mutual information, label ranking average precision scores, etc.); basic graph analyses

Machine learning linear/logistic regression; SVM; decision tree; random forest; KNN; neural networks (CNN, spatial- transformer network, RNN, GAN, etc.); neural agent simulation, transformers and LLMs

Data structures & Algorithms linked list, tree, array, A* pathfinding, Levenshtein distance Laboratory instrumentation: ultrasound; electromyography; electroglottography

LICENSES & CERTIFICATIONS

Deep Learning Specialization [\[View\]](#)

Issued by: Coursera

Last updated: *November 19, 2024*