# Yi-Fang Cheng

🖈 yifangcheng.me | 🔁 cheng627@purdue.edu | **in** yifangchengg | 🔰 (765)-413-7180

## **EDUCATION**

## Purdue University

West Lafayette, IN, USA

Ph.D. in Linguistics with a Graduate Certificate in Applied Statistics

Aug. 2024 - May 2027 (expected)

- Advised by Prof. Daniel J. Olson
- Affiliated with Purdue Bilingualism Lab (PBL) and Computational Social Science Lab (CSS)
- NSF Innovation Corps Program National Team Trainee

## Purdue University

West Lafayette, IN, USA

 $Aug. \ 2022 - Aug. \ 2024$ 

Master of Arts in Linguistics

- Thesis: The Role of Phonetic Awareness in Modulating Bilingual Cross-linguistic Interaction: Evidence from Code-switching (A Quantitative Analysis on Bilingual Acoustic Phonetics)
- Relevant Coursework: Statistical Methods, Statistical Modeling for Linguistics, Applied Linear Analysis, Corpus Linguistics with Python, Acoustic of Speech, Speech Technology, The Data Mine Seminar

# National Taiwan Normal University

Taipei, Taiwan

Bachelor of Arts in English

 $Sep.\ 2017 - Jun.\ 2022$ 

Bachelor of Music in Music

• Relevant Coursework: Research Methods, Linguistic Analysis, Computer Programming in Python

#### Research Experience

## **NSF** Innovation Corps

Remote

 $Entre preneurial\ Lead$ 

June. 2025 - July. 2025 (scheduled)

• Technology: Immersive speech-based chatbot for language learning

The Data Mine

West Lafayette, IN, USA

Aug. 2024 - Dec. 2024

Graduate Data Science Researcher, Reported to Knudsen Institute

- Project: Training LLMs within Manufacturing
- Designed and implemented data pipelines to scrape, clean, and preprocess manufacturing text data for LLM training

Graduate Data Science Researcher, Reported to C-SPAN

Jan. 2024 - May. 2024

- Project: Analysis of Rhetoric on Capitol Hill
- Processed and analyzed congressional speech data to quantify political polarization, using pitch (fundamental frequency) and emotional intensity as metrics
- Employed Bash scripting, Praat scripting, Whisper, and the Parselmouth library for advanced audio analysis

# Purdue Bilingualism Lab

West Lafavette, IN, USA

Aug. 2022 - Jan. 2023

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Research Assistant

- Project: Cross-linguistic Interference and Code-switching Typology
- Analyzed, annotated, and extracted acoustic features of English and Korean speech data
- Recruited participants and ran phonetic experiments within experimental laboratory settings

#### Conference Presentations and Publications

- [C1] Pitch is Fundamental: Has Congressional Rhetoric Become More Polarized? Cheng, Y.-F. (2024). Paper presented at the Biennial Conference of the Brussels Institute for Journalism studies, Brussels, Belgium. (Declined)
- [C2] Phonetic Awareness and Phonetic interference in code-switching among Bilinguals. Cheng, Y.-F., Olson, D. J. (2024). Paper presented at the UIC Bilingualism Forum, Chicago, IL, USA.
- [C3] The effect of phonetic awareness on second language phonetic acquisition. Cheng, Y.-F., Olson, D. J. (2024). Paper presented at the Pronunciation in Second Language Learning and Teaching Conference, Ames, IA, USA.

- [C4] The Role of Phonetic Awareness in Modulating Bilingual Cross-linguistic Interaction: Evidence from Code-switching. Cheng, Y.-F., Olson, D. J. (2024). Purdue Linguistics Symposium, West Lafayette, IN, USA
- [C5] Phonetic interference in bilingual speech: The role of code-switching typology. Seo. Y., Olson, D. J., Cheng, Y.-F. (2023). Paper presented at the Bilingualism Matters Research Symposium, Colombia, SC, USA.
- [C6] Cross-linguistic interference in second language vowels: Evidence from code-switching. Seo, Y., Olson, D. J., Cheng, Y.-F. (2023). Paper presented at the Pronunciation in Second Language Learning and Teaching Conference, West Lafayette, IN, USA.
- [P1] (Submitted) The Role of Orthography in Phonetic Interference during Code-switching. Cheng, Y-F., Olson, D. J.
- [P2] (Sybmitted) The effect of phonetic awareness on second language phonetic acquisition. Cheng, Y.-F., Olson, D. J.

#### Work Experience

VoiceTube Inc.

Taipei, Taiwan

Content Intern

Feb. 2022 - Jul. 2022

- Advanced steady user engagement by producing and translating 60+ English videos distributed to 4M+ users worldwide
- Developed and launched computer-assisted language learning products by designing content and materials for a leading ed-tech company

#### Teaching Experience

## LING 201: Introduction to Linguistics, Purdue University

Instructor, Course coordinator (Spring 2025)

Aug. 2024 - Present

• Instructed introductory linguistics course covering a broad range of theoretical and applied linguistics topics including phonetics, phonology, morphology, syntax, semantics, pragmatics, historical linguistics, sociolinguistics, computational linguistics, and language acquisition

## CHNS 101, 102, DIST 101: Chinese, Purdue University

Instructor

Jan. 2023 - Aug. 2024

• Instructed Mandarin Chinese language courses, covering from beginner to upper-beginner levels, delivered through both in-person and remote formats

#### SERVICE

- Abstract Reviewer, 28th Midcontinental Phonetics and Phonology Conference
- Organizing Committee, 28th Midcontinental Phonetics and Phonology Conference
- Volunteer, 14th Annual Pronunciation in Second Language Learning and Teaching Conference
- Moderator, Purdue Linguistics Symposium 2023
- Purdue Linguistics Association, Workshop Chair (2023–2024)

#### Grants and Awards

- PROMISE Award, Purdue University (2024), \$1000
- PROMISE Award, Purdue University (2023), \$1000

## SKILLS

Languages: Python, R, SAS, SQL, Bash Frameworks & Tools: PyTorch, Praat

DevOps: Git, Docker