Sara Ng

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RESEARCH

How do the melody, rhythm, and pronunciation of spoken language influence meaning? How can speech technology use these signals?

- Probing speech recognition software for prosodic knowledge
- Acoustic entrainment and surprisal
- Discourse functions of prosody

EDUCATION

University of Washington
Ph.D. in Linguistics, 2024
M.S. in Computational Linguistics, 2023
Advised by: Richard Wright, Mari Ostendorf
Thesis: *Prosody in Human Communication and Machine Understanding*

University of Utah
Honors B.A. Linguistics, 2017
B.S. Applied Mathematics, 2017
TESOL Certificate, 2016
Advised by: Abby Kaplan
Thesis: *Musical Text-Setting as Evidence for Syllabification of Highly Moraic Structures in English*

SKILLS

Languages:
Python, R, Matlab, HTML/CSS, JS

Machine Learning:
pytorch, tensorflow, Scikit-learn

Linguistic Tools:
Praat, Kaldi, NLTK

Natural Languages:
French (working)
Spanish (basic)
Toisan Chinese (heritage)

Specialized Equipment:
electroglottograph, field recorder, tongue ultrasound

WORK EXPERIENCE

Western Washington University   Sept 2024 - June 2025
Visiting Assistant Professor
- Instructor for: Intro. to Phonetics, Honors Colloquium in Ling., Topics in Phonetics & Phonology, Computational Ling., Language & Society, Patterns in your Mind

University of Washington   Sept 2017 – June 2024
Teaching and Research Assistant
- Instructor or TA for: Intro. to Phonetics, Intro. to Computational Ling., Shallow Processing Techniques for NLP, Swearing & Taboo Language
- Assisted with language documentation, revising teaching resources, and analysis of perceptual data on hearing-impairment

Meta Reality Labs
Research Scientist Intern   June 2022 - Sept 2023
- Developed classification model of hearing impairment for use in Augmented Reality contexts
- Designed tool for automatically labeling conversational dynamics

Google
SWE Intern, Federated Assistant   June 2021 - March 2022
- Analysis and development of data augmentation strategies
Computational Linguist Intern, Pygmalion   Summer 2019
- Designed prosodic DNN to classify code-switching

CaptionCall   Aug 2016 - Mar 2017
Speech Transcriber

RECENT PUBLICATIONS

Probing Whisper Predictions for French, English and Persian Transcriptions
        2024; Ballier, Burin, Namdarzadeh, Ng, Wright, Yunès; ICNLP
Investigating the Influence of Stance-Taking on Conversational Timing of Task-Oriented Speech
        2024; Ng, Levow, Ostendorf, Wright; INTERSPEECH
Investigating the Acoustic Fidelity of Vowels across Remote Recording Methods
        2024; Oganyan et al.; Linguistics Vanguard
Properties of Constructed Language Phonological Inventories
        2023; Ng & Sleight; UWWPL
Leveraging Prosody for Punctuation Prediction of Spontaneous Speech
        2022; Cho, Ng, Tran, Ostendorf; INTERSPEECH
Production federated keyword spotting via distillation, filtering, and joint federated-centralized training
        2022; Hard et al.; INTERSPEECH