Sara Ng

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RESEARCH

How can acoustics inform understanding of natural language perception and interpretation?

- Classifying perceptual speech cues for listeners with hearing loss
- Analyzing speaker entrainment and lexical surprisal on large datasets
- Member of TIAL Lab

EDUCATION

University of Washington
6th year Ph.D. Student
Computational Linguistics
Advised by: Richard Wright, Mari Ostendorf

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, HTML/CSS, JS, Matlab

Machine Learning:
pytorch, tensorflow, Scikit-learn

Linguistic Tools:
Praat, Kaldi, NLTK

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

Specialized Equipment:
electroglottograph, field recorder, tongue ultrasound

WORK EXPERIENCE

University of Washington Sept 2017 – present
Teaching and Research Assistant

- Instructor or TA for: Intro. to Phonetics, Intro. to Computational Linguistics, Shallow Processing Techniquess for NLP, Swearing & Taboo Language
- Develop resources for language documentation
- Data analysis of perception judgments from hearing-impaired listeners

Meta
Research Scientist Intern, Reality Labs June 2022 - Dec. 2022

- Analyzed behavioral differences between normal hearing and hearing-impaired speakers
- Developed classification model of hearing impairment for use in Augmented Reality (AR) contexts

Google
SWE Intern, Federated Assistant June 2021 - March 2022

- Identified data types causing failures with existing data augmentation strategies
- Devised new, robust augmentation configurations

Computational Linguist Intern, Pygmalion Summer 2019

- Curated large annotated dataset for language ID task
- Designed prosodic DNN to classify code-switching

CaptionCall Aug 2016 - Mar 2017
Speech Transcriber

PAPERS & PRESENTATIONS

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

Modeling the time course of cue weighting angle calculations
2021; Ng, Ellis, Souza, Gallun, Wright; ASA

What does parity mean? A detailed comparison of ASR and human transcription errors
2021; Mansfield, Ng, Levow, Ostendorf, Wright; ASA

Revisiting Parity of Human vs. Machine Conversational Speech Transcription
2021; Mansfield, Ng, Levow, Wright, Ostendorf; INTERSPEECH

Musical Evidence for Syllabification Patterns of Highly Moraic Structures in English
2017; Jessen, Ng, Rodriguez, Kaplan; Linguistic Society of America