Meghavarshini Krishnaswamy (Megh)

Personal Data

Mailing Address:	Department of Linguistics, Communication Bldg. Room 109, Tucson, Arizona-85721
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Education

May 2021	M.S., Human Language Technology, **University of Arizona**
April 2015	M.A., Linguistics, **The English and Foreign Languages University**, Hyderabad
April 2013	B.A. (Hons), English, **Lady Shri Ram College, The University of Delhi**, Delhi

Programming and Technical Skills

Basic	Command Line, Regex, Scala, SQL, Praat Scripting
Intermediate	R, Python [Scikit Learn and PyTorch, Pandas, Numpy, Spacy], Git, Praat, HTML, LaTeX

Work Experience

August 2019 - Present

Graduate Assistant at Department of Linguists, University of Arizona

- Research Assistant, ASIST-ToMCAT project (Summer 2020- present)
  - Currently working on data collection for building unsupervised and semi-supervised models for detecting vocal synchrony/entrainment among participants engaged in cooperative tasks
  - Contributed code and research towards setting up an acoustic feature extraction (using OpenSMILE) and speech analysis pipeline, towards setting up a voice chat system, and an online voice recording app
  - Was engaged in qualitative assessment of human annotations and ASR transcripts, and contributed code towards automating this process.
- Research Assistant, Douglass Phonetics Lab (Spring and Fall, 2020)
  - Was involved in annotating and managing stimuli for a perception task investigating stress patterns in English
  - Conducted the experiment in-person with human subjects
  - Initiated the process of moving the experiment to Finding Five (a platform for online experiments) during the pandemic, and coded the initial setup of the experiment
- Teaching Assistant and Grader for LING 150 "Language in the World" (Fall 2019)
  - Lead weekly section meetings for a group of 28 students

October 2017 - July 2019

Research Associate at Speech and Language Processing Laboratory, EFL University, Hyderabad

DST-CSIR Project "Influence of Coarticulation on Lexical Access"

- Designed the protocol and visual prompts; and conducted an Ultrasound study to analyse the effects of coarticulatory resistance and lingual adjustments in Bengali plosives.
- Compiled text corpora of target words and distractors; and synthesised audio stimuli for a series of acoustic, Ultrasound, and Visual World studies, aimed at analysing intervocalic geminate plosives in Malayalam.
- Contributed a text corpus of monosyllabic Hindi words for an EMA study on the four-way stop contrast.
- Recorded and annotated a corpus of Mongolian words for a controlled acoustic study on vowel harmony.
- Worked with techniques for manipulation of acoustic features such as formants, duration and pitch.

Work Experience

May 2015 - April 2017	**Fellow, Teach For India, Hyderabad** • Taught English and Science in a Grade 6 classroom, and Maths and Environmental Sciences in a Grade 5 classroom as a full-time teacher. • Underwent rigorous teacher-training programs for classroom management, curriculum development, subject-matter expertise and syllabus design. • Raised approximately 82,000 INR through a crowdfunding campaign to set up a digital classroom, class library and fund a sports training program as part of the fellowship. (https://www.ketto.org/fundraiser/mindswithoutfear) • Executed various career-oriented programs for middle- and high-school students

Conferences and Publications

John Culnan, Seongjin Park, Meghavarshini Krishnaswamy, and Rebecca Sharp. Me, myself, and ire: Effects of automatic transcription quality on emotion, sarcasm, and personality detection. In *Proceedings of the Eleventh Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis,* pages 250–256, 2021.

Meghavarshini Krishnaswamy, Indranil Dutta, and Maumita Bhaumik. Alveolar stops exhibit greater coarticulatory resistance than retroflexes and dentals in Malayalam. *The Journal of the Acoustical Society of America,* 148(4):2582–2582, 2020.

Indranil Dutta, Charles Redmon, Meghavarshini Krishnaswamy, Sarath Chandran, and Nayana Raj. Articulatory complexity and lexical contrast density in models of coronal coarticulation in Malayalam. In *Proceedings of the 19th International Congress of Phonetic Sciences,* 2019.

Meghavarshini Krishnaswamy, Indranil Dutta, and Ushasi Banerjee. Active cavity expansion through lingual adjustments to place of constriction in voiced geminates. In *Proceedings of Meetings on Acoustics 175ASA,* volume 33, page 060002. Acoustical Society of America, 2018.

Ushasi Banerjee, Indranil Dutta, and Meghavarshini Krishnaswamy. Evidence for active cavity expansion through advanced lingual place of constriction in voiced geminates. *The Journal of the Acoustical Society of America,* 143(3): 1754–1754, 2018.

Languages

English	Fluent
Hindi	Native fluency
Tamil	Native fluency
German	Certificate of Proficiency from EFL University, Hyderabad
Sanskrit	School Certificate (Grade 10), Central Board of Secondary Education, India

Internships

May 2016 - June 2016	Research Associate at Karadi path Education Company, Chennai Worked on session plans and teacher-aids for *Magic Hindi,* an innovative toolkit for teaching Hindi in non-native middle-school classrooms. • Was responsible for editing Hindi translations of materials to make them more accessible, engaging and contemporary. This included reviewing and copy-editing a book of Hindi poetry that was to accompany the product. • Assisted in revising English versions of Magic Hindi session plans for teachers, and contributed new plans based on up-to-date curriculum. • Was involved in performing rigorous quality checks at multiple stages of the product.