CERYS HUGHES

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https://github.com/ceryshughes

EDUCATION

University of Massachusetts Amherst *Expected August 2025*
PhD in Linguistics, fifth year
Dissertation on computational models of sound category learning and sound change
Advised by Gaja Jarosz and John Kingston

The Ohio State University *May 2020*
B.S. summa cum laude, Double Major:
Computer and Information Science, Artificial Intelligence specialization
Linguistics
GPA: 3.978

RESEARCH EXPERIENCE

Graduate Research Assistant August 2022 - December 2022
Assisting Gaja Jarosz

· Designing an artificial language learning experiment to determine the effect of morphological pattern type (suffix allomorphy vs morphological reversal) on the degree of learners' regularization of exceptional patterns.
· Implementing experiment with PCIbex.
· Collaborating to write sections of a journal submission and running hyperparameter tuning on Expectation-Driven Parameter Learner and MaxEnt + Lexical Scales learner

PhD Program Generals Paper 2 Learning Language-Specific Syllable Boundaries August 2022-July 2023
Advised by Gaja Jarosz and Brian Dillon

· Ongoing exploration of how statistical learning interacts with speakers' language-specific representations of syllable boundaries in word-medial complex consonant clusters

PhD Program Generals Paper 1 Probing a Neural Network for Perceptual Integration June 2021-June 2022
Advised by Kristine Yu, John Kingston, and Michael Becker

· Probing of a Convolutional Neural Network to compare its acoustic representations to hypotheses about human auditory dimensions in the context of contrast shift sound change
· Writing comprehensive 60-page report on background literature, experiment design, and results

Undergraduate Experience: Assisting with Grammar Induction September 2018-December 2019
Advised by William Schuler and Lane Schwartz

· Editing Python code for modifying an unsupervised syntactic Probabilistic Context-Free Grammar induction algorithm and pre-processing data

INVITED TALKS

Hughes, Cerys. Modeling the nasal vowel inventories predicted by phonetic biases and learning. Methoden und Ansätze moderner phonetischer Forschung (Methods and approaches of modern phonetic research) (seminar at the Institute of Phonetics and Speech Processing, Ludwig Maximilian University of Munich) Munich, Germany, July 3

CONFERENCES AND PUBLICATIONS

Hughes, Cerys and Jarosz, Gaja. *Pattern Structure Modulates Learning of Lexically Conditioned Morphology* [Poster] Architectures and Mechanisms for Language Processing (AMLaP) Edinburgh, Scotland, September 5-7, 2024

Hughes, Cerys. *Modeling the nasal vowel inventories predicted by phonetic biases and learning* [Poster] Highlights in the Language Sciences Nijmegen, Netherlands, July 8 - 11

Hughes, Cerys. *Gradient Word-Edge Statistics Influence Syllable Segmentation Judgements* [Poster] Highlights in the Language Sciences Nijmegen, Netherlands, July 8 - 11

Hughes, Cerys. *Interaction of Voicing Cues in Discrimination Differs from Production.* [Poster] The 19th Conference on Laboratory Phonology (LabPhon19) Seoul, South Korea, June 27-29 2024

Hughes, Cerys. *Probing a Neural Network Model of Sound Change for Perceptual Integration.* [Virtual Poster]. Linguistics Society of America Annual Meeting, January 2023, Denver, Colorado.

Hughes, Cerys. *Probing a Neural Network Model of Sound Change for Perceptual Integration.* [Poster]. Annual Meeting on Phonology, October 2022, University of California Los Angeles.

Lee, Seung Suk. Hughes, Cerys. Farinella, Alessa. Pater, Joe. *Learning Stress with Feet and Grids.* [Poster]. Annual Meeting on Phonology, October 2022, University of California Los Angeles.

Hughes, Cerys. Lee, Seung Suk. Farinella, Alessa. Yu, Kristine. *Phonetic implementation of phonologically different high tone spans in Luganda.* [Poster, presented online]. Laboratory Phonology, June 2022.

Lee, Seung Suk. Farinella, Alessa. Hughes, Cerys. Yu, Kristine. *Phonetic implementation of phonologically different high tone spans in Luganda.* [Virtual presentation]. International Conference on Tone and Intonation (TAI), December 2021, Sonderborg, Denmark.

TEACHING EXPERIENCE

1. Graduate TA

   - LING409, Introduction to Computational Linguistics (Kristine Yu, Rajesh Bhatt, Fall 2024)
   - LING201, Introduction to Linguistics (Kyle Johnson, Spring 2024)
   - LING492b, Advanced Introduction to Computational Linguistics (Gaja Jarosz, Spring 2023)
   - LING150, Language Change (Faruk Akkus, Spring 2022)
   - LING592b, Speech Processing (Kristine Yu, Autumn 2021)

2. Undergratuate TA

   - CSE3521, Survey of Artificial Intelligence I (Joe Barker, Fall 2019)
   - Introductory software 1 and 2 (CSE 2221 with Benjamin Trevor in Spring 2017 and Autumn 2017; CSE 2231 with Annatala Wolf in Spring 2018)

TECHNICAL STRENGTHS

Programming Languages	Python, Java, R. Some familiarity with C, C#, Ruby, Javascript, and Praat scripting
Tools	Using remote servers, version control with Git, analyzing audio data with Praat, unit testing

RELEVANT COURSEWORK

1. University of Massachusetts Amherst

   - Graduate-level phonology and phonetics
   - Graduate-level introduction to psycholinguistics

- Computational Cognitive Modeling (LING 692c)

- Seminars on speech perception, acquiring morphophonology, aquiring stress placement, Articulatory Phonology, and describing acoustic dimensions

- Seminar on Event-Related Potentials

2. Ohio State University

- Foundations of Speech and Language Processing (CSE 5525)

- Mixed graduate/undergraduate Computational Linguistics sequence (LING 5801, 5802)

- Survey of Artificial Intelligence 1 and 2 (CSE 3521 and 5522)

- Foundations of Data Structures and Algorithms 1 and 2 (CSE 2321 and 2331)

- Software sequence (CSE 2221 and 2231)