Mengyang Qiu

Curriculum Vitae

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---------- Education

University at Buffalo, The State University of New York, Buffalo, NY

2021(Expected) **Ph.D.**, Communicative Disorders and Sciences.

2019 **M.S.**, Computational Linguistics.
M.S. Project: Artificial Error Generation with Fluency Filtering
Advisor: Jungyeul Park, Ph.D.

2016 **M.A.**, General Linguistics.
M.A. Project: Verb Aspect and the Activation of Location Information
Advisor: Jean-Pierre Koenig, Ph.D.

2013 **B.A.**, Psychology & Linguistics (Honors in Language and Cognition).
summa cum laude

---------- Publications

In press **Qiu, M.** & Johns, B. T. Semantic diversity in paired-associate learning: Further evidence for the information accumulation perspective of cognitive aging. *Psychonomic Bulletin & Review*.

2019 **Qiu, M.** & Park, J. Artificial error generation with fluency filtering. *Proceedings of the 14th Workshop on Innovative Use of NLP for Building Educational Applications*.

Qiu, M., Chen, X., Liu, M., Parvathala, K., Patil, A. & Park, J. Improving precision of grammatical error correction with a cheat sheet. *Proceedings of the 14th Workshop on Innovative Use of NLP for Building Educational Applications*.

2018 **Qiu, M.** & Johns, B. T. Memory searching pathway underlying verb fluency. Poster presented at the *2018 ASHA Convention*.

Min, H., Guo, L., Higginbotham, D. J., & **Qiu, M.** How does writing medium influence the operation of writing processes and writing quality? Poster presented at the *2018 ASHA Convention*.

Research Experience

University at Buffalo, The State University of New York, Buffalo, NY

2016–Present **Graduate Research Assistant**, PI: Brendan Johns, Ph.D.,
Language and Memory Lab, Department of Communicative Disorders and Sciences.
Duties:
- developing automated assessment procedures using computational models of language and memory to detect Mild Cognitive Impairment, Alzheimer's disease and other forms of dementia
- working on experiments to delineate the natural changes that occur as a consequence of increasing amounts of experience during aging from actual cognitive decline

Spring 2019 **Project Leader**, Supervisor: Jungyeul Park, Ph.D.,
BEA 2019 Shared Task: Grammatical Error Correction, Department of Linguistics.
Duties:
- supervising four master's students in this project
- experimenting statistical machine translation and neural machine translation approaches to grammatical error correction
- using real errors and surrounding context to generate artificial grammatical error sentences for data augmentation
- examining current evaluation metrics for data augmentation

Summer 2017 **Graduate Research Assistant**, PI: Christopher McNorgan, Ph.D.,
Computational Cognitive Neuroscience Lab, Department of Psychoplogy.
Duties:
- learned to use SPM12 in Matlab to analyze fMRI data
- worked on an fMRI experiment using lexical decision task with a word frequency manipulation

2013–2017 **Graduate Member**, PI: Gail Mauner, Ph.D.,
Psycholinguistics Lab, Department of Psychoplogy.

2012–2013 **Undergraduate Research Assistant**, PI: Gail Mauner, Ph.D.,
Psycholinguistics Lab, Department of Psychoplogy.
Duties:
- ran participants in various experiments (e.g., relationship between the verb and its participants, the choice of sentence structure in online sentence processing, the processing and mental representation of lexical ambiguity, and repetition and semantic priming)
- generated experimental items (synonyms, antonyms, and categorical coordinates); examined various characteristics of words and word pairs (e.g., word frequencies, and forward and backward associations)
- analyzed data from previous undergraduate research project on repetition priming effects

Summer 2012 **Undergraduate Research Assistant**, PI: Paul Luce, Ph.D.,
Language Perception Lab, Department of Psaychology.
Duties:
- extracted experimental stimuli (words, nonwords, rhymes, and onsets) from long sound files using Praat
- labeled experimental stimuli using computer-readable Klattese transcription

Summer 2011   **Undergraduate Research Assistant**, PI: Eon-Suk Ko, Ph.D.,
Child Language Development Project, Department of Linguistics.
Duties:
- analyzed phonetic data of utterance-final word in child-directed speech
- prepared experimental stimuli for the project on effects of speaking rate on the vowel duration using Praat

Teaching Experience

University at Buffalo, The State University of New York, Buffalo, NY

As Teaching Assistant

2016–Present   **CDS 151: Intro to Speech-Language Pathology**,
Department of Communicative Disorders and Sciences.

As Instructor

2013–2015   **CHI 101 & 102: First-Year Chinese**,
Department of Linguistics.

Honors and Awards

University at Buffalo, The State University of New York, Buffalo, NY

2018   GSA Conference Funding, $550

2013–Present   Teaching Assistantship with Full Tuition Scholarship

2015   New York State Graduate Student Employees Union Award, $2202.50

2013   Wolfgang Wolck Outstanding Graduating Senior Award, $250

2010–2012   Dean's List

Professional Service

Student Reviewer

2017   **Journal of Speech, Language, and Hearing Research**,
(Under the supervision of Dr. Ling-Yu Guo).

Techincal Skills

Programming   Java, Python, Javascript
Statistics   R, Matlab, SPSS
Experiment   psiTurk, jsPsych, JATOS
NLP   PyTorch, Keras, SpaCy
Others   LaTeX, AWS, Google Cloud, Prolog, Praat