

MENGYANG QIU

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EDUCATION

University at Buffalo, Buffalo, NY

Ph.D., Communicative Disorders and Sciences (CogSci Track) 2016–2023

Dissertation: The Information Accumulation Perspective of Cognitive Aging

Advisors: Nichol Castro, Ph.D.; Brendan T. Johns, Ph.D.

M.S., Computational Linguistics/Natural Language Processing 2018–2019

M.S. Project: Artificial Error Generation with Fluency Filtering

Advisor: Jungyeul Park, Ph.D.

M.A., General Linguistics 2013–2015

M.A. Project: Verb Aspect and the Activation of Location Information

Advisor: Jean-Pierre Koenig, Ph.D.

B.A., Psychology & Linguistics (Honors in Language and Cognition) 2010–2013

Honors Thesis: Personifications in Mandarin and English

Advisor: Jean-Pierre Koenig, Ph.D.

Summa Cum Laude; Minor in Sociology

ACADEMIC POSITIONS

Trent University, Peterborough, ON

Assistant Professor (Limited Term) | Department of Psychology 2023–Present

McGill University, Montreal, QC

Graduate Research Trainee | Department of Psychology Fall 2021

McGill Cognitive Computing Lab

Advisor: Brendan T. Johns, Ph.D.

HONORS & AWARDS

NIDCD Research Symposium in Clinical Aphasiology Student Fellowship, \$1600 2022

Mark Diamond Research Fund, University at Buffalo, \$2964 2020–2021

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

Wolfgang Wölck Outstanding Graduating Senior Award, University at Buffalo, \$250 2013

PUBLICATIONS

Cognitive and Language Science

Qiu, M., Castro, N., & Johns, B. T. (submitted). Estimating type of print exposure across aging through author production. *Proceedings of the Annual Meeting of the Cognitive Science Society*.

Li, Y., & **Qiu, M.** (2023). A network analysis of the semantic evolution of ‘fruit’ and ‘stone’ in Tibeto-Burman languages. *PsyArXiv*. <https://doi.org/10.31234/osf.io/dn75w>.

Qiu, M., & Johns, B. T. (2021). A distributional and sensorimotor analysis of noun and verb fluency. *PsyArXiv*. <https://doi.org/10.31234/osf.io/e9n8w>.

- Qiu, M.**, Castro, N., & Johns, B. T. (2021). Structural comparisons of noun and verb networks in the mental lexicon. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 1649–1655. <https://escholarship.org/uc/item/4b20s6wp>.
- Qiu, M.**, & Johns, B. T. (2020). Semantic diversity in paired-associate learning: Further evidence for the information accumulation perspective of cognitive aging. *Psychonomic Bulletin & Review*, 27(1), 114–121. <https://doi.org/10.3758/s13423-019-01691-w>.

Natural Language Processing

- Wang, J., Zeng, M., Kuang, J., **Qiu, M.**, & Park, J. (submitted). Alignment-based evaluation measures for end-to-end GEC. *Language Resources and Evaluation*.
- Wang, I. X., Wu, X., Coates, E., Zeng, M., Kuang, J., Liu, S., **Qiu, M.**, & Park, J. (submitted). Neural automated writing evaluation with corrective feedback. *Proceedings of the 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics – System Demonstration Track (NAACL 2024)*.
- Zeng, M., Kuang, J., **Qiu, M.**, Song, J., & Park, J. (accepted). Evaluating prompting strategies for grammatical error correction based on language proficiency. *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*.
- Park, J., & **Qiu, M.** (accepted). Frustratingly simple prompting-based text denoising. *Proceedings of the Second Tiny Papers Track at the Twelfth International Conference on Learning Representations (ICLR 2024)*.
- Qiu, M.**, & Park, J. (2019). Artificial error generation with fluency filtering. *Proceedings of the Fourteenth Workshop on Innovative Use of NLP for Building Educational Applications*, 87–91. <https://doi.org/10.18653/v1/W19-4408>.
- Qiu, M.**, Chen, X., Liu, M., Parvathala, K., Patil, A., & Park, J. (2019). Improving precision of grammatical error correction with a cheat sheet. *Proceedings of the Fourteenth Workshop on Innovative Use of NLP for Building Educational Applications*, 240–245. <https://doi.org/10.18653/v1/W19-4425>.

CONFERENCE PRESENTATIONS & POSTERS

- Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2024, February). *Clinically important change in speech intelligibility from different perspectives: A pilot study* [Conference presentation]. 2024 Conference on Motor Speech, San Diego, CA. <https://www.madonna.org/motor-speech-conference>.
- Li, Y., & **Qiu, M.** (2023, May). *The semantic evolution of ‘fruit’ and ‘stone’ in Sino-Tibetan languages* [Conference presentation]. 32nd Annual Meeting of the Southeast Asian Linguistics Society, Chiang Mai, Thailand. <https://seals32.human.cmu.ac.th>.
- Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2022, August). *Progress toward estimating the minimal clinically important difference of speech intelligibility: A crowdsourced perceptual experiment* [Poster presentation]. 8th International Conference on Speech Motor Control, Groningen, the Netherlands. <https://slp-nijmegen.nl/smc2022/>.
- Qiu, M.**, & Castro, N. (2022, May). *Developing a web-based stimulus selection hub for anomia treatment using R and Shiny* [Poster presentation]. 51st Clinical Aphasiology Conference, Wrightsville Beach, NC, United States. <https://clinicalaphasiologyconference.org>.
- Qiu, M.**, & Castro, N. (2021, October). *Comparing semantic networks of early vocabulary across languages* [Conference presentation]. Complexity and Cognition: Satellite Symposium at the Conference on Complex Systems. <https://sites.google.com/view/compcogccs2021>.
- Qiu, M.**, & Johns, B. T. (2018, November). *Memory searching pathway underlying verb fluency* [Poster presentation]. Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, United States. <https://convention.asha.org>.

RESEARCH EXPERIENCE

University at Buffalo, Buffalo, NY

Graduate Research Assistant | PI: Nichol Castro, Ph.D. 2020–2021

Adult Language Network Lab, CDS Department

Online Experiment Developer | PI: Thea Knowles, Ph.D. Spring 2020

Clinical Applications of Speech Acoustics Lab, CDS Department

Project Leader | Supervisor: Jungyeul Park, Ph.D. Spring 2019

Grammatical Error Correction Project, Department of Linguistics

Graduate Research Assistant | PI: Brendan T. Johns, Ph.D. 2016–2019

Computational Language and Memory Lab, CDS Department

Graduate Research Assistant | PI: Christopher McNorgan, Ph.D. Summer 2017

Computational Cognitive Neuroscience Lab, Department of Psychology

Undergraduate Research Assistant | PI: Gail Mauner, Ph.D. 2012–2013

Psycholinguistics Lab, Department of Psychology

Undergraduate Research Assistant | PI: Paul Luce, Ph.D. Summer 2012

Language Perception Lab, Department of Psychology

Undergraduate Research Assistant | PI: Eon-Suk Ko, Ph.D. Summer 2011

Child Language Development Project, Department of Linguistics

TEACHING EXPERIENCE

Instructor of Record

Trent University, Peterborough, ON

PSYC 2400: Introduction to Cognitive Psychology 2022–Present

PSYC 3220: Neuropsychology 2023–Present

PSYC 3451: Psychology of Language 2022–Present

Toronto Metropolitan University International College, Toronto, ON

CPSY 102: Introduction to Psychology I 2022–Present

University of Guelph, Guelph, ON

PSYC 1010: Making Sense of Data in Psychological Research Winter 2022

University at Buffalo, Buffalo, NY

CHI 101 & 102: First-Year Chinese 2013–2015

Teaching Assistant/Guest Lecturer

University of Toronto Scarborough, Scarborough, ON

LINA 01: Introduction to Linguistics 2021–2022

LINB 60: Comparative Study of English and Chinese Winter 2022

PSYC 70: Advanced Research Methods Laboratory Winter 2022

Trent University, Peterborough, ON

PSYC 2400: Introduction to Cognitive Psychology Summer 2022

University at Buffalo, Buffalo, NY

CDS 151: Introduction to Speech-Language Pathology and Audiology 2016–2021

CDS 564: Language Disorders in Adults 2017–2019

CDS 480/687: Disorders of Memory 2017–2019

PROFESSIONAL SERVICE & AFFILIATIONS

Journal Article Reviews

Behavior Research Methods
Journal of Speech, Language, and Hearing Research

Conference Reviews

The Conference on Empirical Methods in Natural Language Processing (EMNLP) 2023
The Annual Meeting of the Cognitive Science Society 2022–Present
Workshop on Innovative Use of NLP for Building Educational Applications 2020–Present

Member

Cognitive Science Society 2021–Present
ACL Special Interest Group for Building Educational Applications 2019–Present

TECHNICAL SKILLS

Programming: Python, Javascript, Java, R, Matlab
Experiment: jsPsych, PsychoPy/JS, JATOS, psiTurk, E-Prime
NLP: PyTorch, Transformers, Keras, SpaCy, NLTK
Others: L^AT_EX, SQL, Prolog, Praat

OTHER INFORMATION

Citizenship: China
Permanent Residency: Canada
Languages: Mandarin (native), English (fluent), Cantonese (receptive)

REFERENCES

Nichol Castro, Ph.D.

Assistant Professor
Director of the Adult Language Network Laboratory
Department of Communicative Disorders and Sciences
University at Buffalo
E-mail: nicholca@buffalo.edu
<https://sites.google.com/view/alnlab>

Brendan T. Johns, Ph.D.

Assistant Professor
Director of the McGill Cognitive Computing Laboratory
Department of Psychology
McGill University
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Jean-Pierre Koenig, Ph.D.

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University at Buffalo
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Jungyeul Park, Ph.D.

Lecturer
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