

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	

PROFESSIONAL POSITIONS

Assistant Professor (Limited Term) Department of Psychology, Trent University	2023–Present
Founding Member Open Writing Evaluation France	2022–Present
Graduate Research Trainee McGill Cognitive Computing Lab, McGill University	Fall 2021

PUBLICATIONS

* indicates student mentee

Language and Cognition

Qiu, M., Brisebois, Z.*, & Sun, S. (2025). [Can LLMs simulate human behavioral variability? A case study in the phonemic fluency task](#). *arXiv preprint arXiv:2505.16164*.

Li, Y., & **Qiu, M.** (2025). [A network analysis of the semantic evolution of ‘fruit’ and ‘stone’ in Tibeto-Burman languages](#). *Poznan Studies in Contemporary Linguistics*, 61(2), 121–172.

Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2025). Progress toward estimating the minimal clinically important difference of intelligibility: A crowdsourced perceptual experiment. *Journal of Speech, Language, and Hearing Research*, 68(7S), 3480–3494.

Qiu, M., Castro, N., & Johns, B. T. (2024). [Estimating type of print exposure across aging through author production](#). *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46, 1175–1181.

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.

Qiu, M., & Johns, B. T. (2021). [A distributional and sensorimotor analysis of noun and verb fluency](#). *PsyArXiv*.

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.

Natural Language Processing

Li, Z., Nguyen, T. M., Huang, Z., Gu, Y., Gao, Q., Park, E. J., Chen, Y., Liu, S., **Qiu, M., & Park, J.** (under review). Chinese GEC applications supporting L2 writing from translation-based to immersive learning. *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing: System Demonstrations*.

Qiu, M., Nguyen, T. M., Huang, Z., Li, Z., Gu, Y., Gao, Q., Liu, S., & Park, J. (2025). Multilingual grammatical error annotation: Combining language-agnostic framework with language-specific flexibility. *Proceedings of the 20th Workshop on Innovative Use of NLP for Building Educational Applications*, 202–212.

Qiu, M., Gao, Q., Yang, L., Gu, Y., Nguyen, T. M., Huang, Z., & Park, J. (2025). Chinese grammatical error correction: A survey. *arXiv preprint arXiv:2504.00977*.

Gu, Y., Huang, Z., Zeng, M., **Qiu, M., & Park, J.** (2025). Improving automatic grammatical error annotation for Chinese through linguistically-informed error typology. *Proceedings of the 31st International Conference on Computational Linguistics*, 2781–2798.

Wang, J., **Qiu, M., Gu, Y., Huang, Z., & Park, J.** (2025). Refined evaluation for end-to-end grammatical error correction using an alignment-based approach. *Proceedings of the 31st International Conference on Computational Linguistics*, 774–785.

Guo, Y., Guo, M., Su, J., Yang, Z., Zhu, M., Li, H., **Qiu, M., & Liu, S. S.** (2024). Bias in large language models: Origin, evaluation, and mitigation. *arXiv preprint arXiv:2411.10915*.

Park, J., & **Qiu, M.** (2024). Frustratingly simple prompting-based text denoising. *The Second Tiny Papers Track at ICLR 2024*.

Wang, I. X., Wu, X., Coates, E., Zeng, M., Kuang, J., Liu, S., **Qiu, M., & Park, J.** (2024). Neural automated writing evaluation with corrective feedback. *arXiv preprint arXiv:2402.17613*.

Zeng, M., Kuang, J., **Qiu, M., Song, J., & Park, J.** (2024). 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*, 6426–6430.

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.

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.

CONFERENCE PRESENTATIONS

Presenter

Qiu, M., Nguyen, T. M., Huang, Z., Li, Z., Gu, Y., Gao, Q., Liu, S., & Park, J. (2025, July). Multilingual grammatical error annotation: Combining language-agnostic framework with language-specific flexibility [Poster presentation]. *20th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2025)*, Vienna, Austria.

Gu, Y., Huang, Z., Zeng, M., **Qiu, M., & Park, J.** (2025, January). Improving automatic grammatical error annotation for Chinese through linguistically-informed error typology [Oral presentation]. *31st International Conference on Computational Linguistics (COLING 2025)*, Abu Dhabi, UAE.

- Wang, J., **Qiu, M.**, Gu, Y., Huang, Z., & Park, J. (2025, January). *Refined evaluation for end-to-end grammatical error correction using an alignment-based approach* [Poster presentation]. 31st International Conference on Computational Linguistics (COLING 2025), Abu Dhabi, UAE.
- Qiu, M.**, Castro, N., & Johns, B. T. (2024, July). *Estimating type of print exposure across aging through author production* [Oral presentation]. 46th Annual Meeting of the Cognitive Science Society, Rotterdam, the Netherlands.
- 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.
- Qiu, M.**, & Castro, N. (2021, October). *Comparing semantic networks of early vocabulary across languages* [Oral presentation]. Complexity and Cognition: Satellite Symposium at the Conference on Complex Systems.
- Qiu, M.**, Castro, N., & Johns, B. T. (2021, July). *Structural comparisons of noun and verb networks in the mental lexicon* [Poster presentation]. 43rd Annual Meeting of the Cognitive Science Society (Virtual).
- Qiu, M.**, & Park, J. (2019, August). *Artificial error generation with fluency filtering* [Poster presentation]. 14th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2019), Florence, Italy.
- 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.

Contributor

- Manes, J., Stipancic, K. L., Rohl, A., **Qiu, M.**, Corcos, D., Greenlee, J., Tjaden, K., & Patterson, C. (accepted). *A paired comparison approach to assessing longitudinal speech changes in Parkinson's disease following STN-DBS* [Poster presentation]. Annual Convention of the American Speech-Language-Hearing Association, Washington, D.C., United States.
- Zeng, M., Kuang, J., **Qiu, M.**, Song, J., & Park, J. (2024, May). *Evaluating prompting strategies for grammatical error correction based on language proficiency* [Poster presentation]. 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024), Torino, Italy.
- Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2024, February). *Clinically important change in speech intelligibility from different perspectives: A pilot study* [Oral presentation]. 2024 Conference on Motor Speech, San Diego, CA.
- Li, Y., & **Qiu, M.** (2023, May). *The semantic evolution of 'fruit' and 'stone' in Sino-Tibetan languages* [Oral presentation]. 32nd Annual Meeting of the Southeast Asian Linguistics Society, Chiang Mai, Thailand.
- 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.
- Min, H., Guo, L., Higginbotham, D. J., & **Qiu, M.** (2018, November). *How does writing medium influence the operation of writing processes and writing quality?* [Poster presentation]. Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, United States.

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

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 2600: Introduction to Learning	2024–Present
PSYC 3220: Neuropsychology	2023–2024
PSYC 3430: Memory	2024–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 35: Introduction to Computational Linguistics	Winter 2024
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
CDS 564: Language Disorders in Adults
CDS 480/687: Disorders of Memory

2016–2021
2017–2019
2017–2019

STUDENT SUPERVISION

Research Practicum (Department of Psychology, Trent University)

Zoe Brisebois | Linguistic Factors in Phonemic Fluency

Fall 2024

PROFESSIONAL SERVICE & AFFILIATIONS

Ad Hoc Journal Article Reviews

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

Conference Reviews

IJCNLP-AACL 2025 Student Research Workshop (Pre-Submission Mentorship)	2025
Association for Computational Linguistics Rolling Review (ACL, EMNLP, etc.)	2025
2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)	2023
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, SpaCy, NLTK, Stanza

Others: L^AT_EX, HTML, SQL, Prolog, Praat

OTHER INFORMATION

Citizenship: Canadian 

Languages: Mandarin (native), English (fluent)

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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<http://btjohns.com>

Jean-Pierre Koenig, Ph.D.

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Jungyeul Park, Ph.D.

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MDS Computational Linguistics Program
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