Fenqi Wang

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Research Interests

Motor Speech Disorders, Alzheimer's Disease and Related Dementias
Speech Biomarkers, AI in Healthcare, Computational Modeling

Academic Appointments

2024 - present **Research Fellow**
Neurology Artificial Intelligence Program, Mayo Clinic, USA
Supervisors: Hugo Botha and Rene Utianski

2023 - 2024 **Term Lecturer**
Department of Linguistics, Simon Fraser University, Canada

2023 - 2024 **Postdoctoral Fellow**
Department of Linguistics, Simon Fraser University, Canada
Supervisors: Yue Wang & Henny Yeung

Education

2023 **Ph.D. in Linguistics**, University of Florida, USA
Dissertation: *The production and perception of vocal emotions in American English and Mandarin Chinese: A cross-linguistic study with computational modeling*
Committee Chair: Ratree Wayland
Committee Members: Caroline Wiltshire, Sarah Moeller, Yonghee Oh, Richard Wang

2020 **M.A. in Linguistics**, University of Kansas, USA
Thesis: *The effect of pitch accent on the perception of English lexical stress by native listeners*
Committee Chair: Annie Tremblay
Committee Members: Allard Jongman, Jie Zhang

2017 **M.A. in English Language & Literature**, China University of Geosciences (Wuhan), China

2014 **B.A. in English Translation & Interpretation**, Wuhan University of Engineering Science, China

Grants

2025 - 2026 Project Title: Developing Phonet for speech articulation assessment in Apraxia of Speech
Funding: New Investigators Research Grant (American Speech-Language-Hearing Foundation)
Total: US$10,000
Role: Principal Investigator

2024 - 2026 Project Title: Creating adaptive vocal interfaces in human-AI interactions
Funding: SFU FASS Breaking Barriers Grant (Internal)
Total: CA$70,000
Role: Co-investigator (PI: Yue Wang; Co-PIs: Angelica Lim, Henny Yeung, & Paige Tuttosi)

2024 - 2026 Project Title: Consuming text and audio fake news in a first and second language

Publications

Manuscripts Under Review/In Revision

Under review — **Fenqi Wang**, Joseph Duffy, Ashley Bachman, Leland Barnard, Hugo Botha, & Rene Utianski. Deep learning-derived measures of sound-level accuracy in Primary Progressive Apraxia of Speech: A feasibility pipeline with descriptive evidence from two cases.

Under review — **Fenqi Wang**. Cross-linguistic emotion perception: Impact of native language and visual cues in English and Mandarin Chinese speakers.

Under review — **Fenqi Wang**, Delin Deng, Ratree Wayland, H. Henny Yeung, & Yue Wang. An investigation of the phonetic variation of the word-initial [l] and [n] in accented Mandarin.

Book Chapters

Under review — Ryan Bennett, Kevin Tang, & **Fenqi Wang**. Glottalized stops and affricates in Eastern Mayan languages. https://doi.org/10.31234/osf.io/4ksvx_v1

Journal Articles

Accepted — **Fenqi Wang**. Modeling the acoustic profiles of vocal emotions in American English and Mandarin Chinese. *Phonetica*.

2025 — Delin Deng, **Fenqi Wang**, & Ratree Wayland. Nasalization reduction and grammaticalization of genre in Swiss French: A corpus-based sociophonetic study. *Lingua*, *323*, 103960. https://doi.org/10.1016/j.lingua.2025.103960 [co-first author]

2024 — Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Evaluating the consistency of lenition measures: Neural networks' posterior probability, intensity velocity, and duration. *Journal of the Acoustical Society of America*, *156*(2), 1367-1379. https://doi.org/10.1121/10.0028299

2024 — **Fenqi Wang**, Delin Deng, Kevin Tang, & Ratree Wayland. The effect of pitch accent on the perception of English lexical stress: Evidence from English and Mandarin Chinese listeners. *Languages*, *9*(3), 87. https://doi.org/10.3390/languages9030087

2023 — Delin Deng & **Fenqi Wang**. A corpus-based study of *quoi* in French native speech. *Linguistics Vanguard*, *9*(1), 161-171. https://doi.org/10.1515/lingvan-2023-0027

2023 — Delin Deng, **Fenqi Wang**, & Ratree Wayland. The pitch contour of the French discourse marker *donc*: A corpus-based study using generalized additive mixed-effects modeling. *Journal of French Language Studies*, *33*(3), 324-356. https://doi.org/10.1017/S0959269523000121 [co-first author]

2023 — Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Quantitative acoustic versus deep learning metrics of lenition. *Languages*, *8*(2), 98. https://doi.org/10.3390/languages8020098 [co-first author]

2023 — Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. From sonority hierarchy to posterity probability as a measure of lenition: The case of Spanish stops. *Journal of the Acoustical Society of America*, *153*(2), 1191-1203. https://doi.org/10.1121/10.0017247

2023 — Huanhuan Liu, Zibin Guo, Yishan Jiang, John Schwieter, & **Fenqi Wang**. Neural circuits underlying language control and modality control in bilinguals: An fMRI study. *Neuropsychologia*, *178*, 108430. https://doi.org/10.1016/j.neuropsychologia.2022.108430

2022 — Delin Deng & **Fenqi Wang**. Review of *Teacher Transition into Innovative Learning Environments: A Global Perspective*. *Australian Journal of Applied Linguistics*, *5*(2), 88-91. https://doi.org/10.29140/ajal.v5n2.721

2022 — Shuang Liu, John Schwieter, **Fenqi Wang**, & Huanhuan Liu. An event-relation potential study of self-positivity bias in native and foreign language contexts. *Psychophysiology*, *60*(1), e14145. https://doi.org/10.1111/psyp.14145

2022	Dongxue Liu, John Schwieter, **Fenqi Wang**, Li Mu, & Huanhuan Liu. Uncovering the effects of bilingual language control on rational decisions: An ERP study. *Psychophysiology*, *59*(10), e14066. https://doi.org/10.1111/psyp.14066
2022	Tingting Guo, **Fenqi Wang**, Ningning Cao, & Huanhuan Liu. Conflicts influence affects: An fMRI study of emotional effects in a conflict task. *Cognitive Neurodynamics*, *16*(6), 1261-1271. https://doi.org/10.1007/s11571-022-09790-6
2022	Linyan Liu, John Schwieter, **Fenqi Wang**, & Huanhuan Liu. First and second languages differentially affect rationality when making decisions: An ERP study. *Biological Psychology*, *169*, 108265. https://doi.org/10.1016/j.biopsycho.2022.108265
2021	Huanhuan Liu, Wanqing Li, Mingyue Zuo, **Fenqi Wang**, Zibin Guo, & John Schwieter. Cross-task adaptation effects of bilingual language control on cognitive control: A dual-brain EEG examination of simultaneous production and comprehension. *Cerebral Cortex*, *32*(15), 3224-3242. https://doi.org/10.1093/cercor/bhab411
2020	Man Zhang, Xin Wang, **Fenqi Wang**, & Huanhuan Liu. Effect of cognitive style on language control during joint language switching: An ERP study. *Journal of Psycholinguistic Research*, *49*, 383–400. https://doi.org/10.1007/s10936-019-09682-7

Proceedings

In press	Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. In *Proceedings of the 56th Linguistics Colloquium*.
In press	Ratree Wayland, Kevin Tang, Sophia Vellozzi, **Fenqi Wang**, & Rahul Sengupta. Measuring gradient effects of alcohol on speech with neural networks' posterior probability of phonological features. In *Proceedings of the 20th International Congress of the Phonetic Sciences*. https://psyarxiv.com/4wtc8/
2024	Paige Tuttösí, H. Henny Yeung, Yue Wang, **Fenqi Wang**, Guillaume Denis, Jean-Julien Aucouturier, and Angelica Lim. Mmm whatcha say? Uncovering distal and proximal context effects in first and second-language word perception using psychophysical reverse correlation. In *Interspeech 2024*. https://doi.org/10.21437/Interspeech.2024-1296
2023	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rachel Meyer, & Rahul Sengupta. Neural network-base measure of consonant lenition in L2 Spanish. In *Proceedings of Meetings on Acoustics* (Vol. 52, No. 1). AIP Publishing. https://doi.org/10.1121/2.0001881
2023	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rachel Meyer, & Rahul Sengupta. Neural network-based measure of consonant lenition in Parkinson's Disease. In *Proceedings of Meetings on Acoustics* (Vol. 52, No. 1). AIP Publishing. https://doi.org/10.1121/2.0001913
2023	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural networks' posterior probability as measure of effects of alcohol on speech. In *Proceedings of Meetings on Acoustics* (Vol. 51, No. 1). AIP Publishing. https://doi.org/10.1121/2.0001764
2022	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. Lenition measures: Neural networks' posterior probability versus acoustic cues. In *Proceedings of Meetings on Acoustics* (Vol. 50, No. 1). AIP Publishing. https://doi.org/10.1121/2.0001728

Conference Presentation

Oral Presentations

2024	**Fenqi Wang**, Andrew Cheng, Farzana Ali, Antonius Tam, & Henny Yeung. An acoustic study of pitch features of infant- and adult-directed speech in first and second languages. *The 49th Boston University Conference on Language Development* (BUCLD), Boston, USA.
2024	Andrew Cheng, **Fenqi Wang**, & Henny Yeung. Ethnic orientation influences infant-directed speech patterns in multilingual, multicultural households. *The 52nd Annual Meeting of New Ways of Analyzing Variation* (NWAV), Miami, USA.
2021	**Fenqi Wang**, Delin Deng, & Ratree Wayland. The ongoing sound change between /l/ and /n/ in Gan Chinese: Random forest classification. *The 181st Meeting of Acoustical Society of America* (ASA), Seattle, USA.

2021	**Fenqi Wang**, Delin Deng, Qingcheng Zeng, Ratree Wayland, & Kevin Tang. A corpus study of the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin: Random forest classification. *The 49th Meeting of New Ways of Analyzing Variation* (NWAV), Austin, USA (virtual).
2021	**Fenqi Wang** & Shiyi Wang. The emergence of /l/ in Chongyang Gan Chinese: OT learning with GLA. *The 54th International Conference on Sino-Tibetan Languages and Linguistics* (ICSTLL54), Chengdu, China (virtual).
2021	**Fenqi Wang**. Merger of /l/ and /n/ in Chongyang Gan Chinese: OT analysis and GLA. *The 34th Paris Meeting on East Asian Linguistics* (JLAO34), Paris, France (virtual).
2021	Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. *Disfiller 2021*, Bristol, UK (virtual).
2020	Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. *The 56th Linguistics Colloquium*, Mainz, Germany (virtual).

Posters

2025	**Fenqi Wang**, Joseph Duffy, Ashley Bachman, Hugo Botha, & Rene Utianski. AI-based Detection of Articulatory Modulations Induced by Delayed Auditory Feedback in PPAOS. *ASHA Convention 2025*, Washington, D.C., USA.
2025	**Fenqi Wang**, Hugo Botha, & Rene Utianski. Using AI to detect articulatory modulations under delayed auditory feedback in PPAOS. *The 5th Biennial Boston Speech Motor Control Symposium* (BSMCS), Boston, USA.
2025	**Fenqi Wang**, Rene Utianski, Joseph Duffy, David Jones, & Hugo Botha. Deep learning-driven phonetic profiling of dysarthric speech. *The 188th Meeting of Acoustical Society of America* (ASA), New Orleans, USA.
2024	**Fenqi Wang**, Jetic Gu, Meagan Durana, Chihiro Mabohang, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Real-time speech adaptations in conversations between human interlocutor and AI confederate. *The 186th Meeting of Acoustical Society of America* (ASA), Ottawa, Canada.
2024	Jetic Gu, **Fenqi Wang**, Ivan Fong, Samuel To, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. A new experimental design to study speech adaptations in spontaneous human-computer conversations. *The 186th Meeting of Acoustical Society of America* (ASA), Ottawa, Canada.
2024	Ivan Fong, **Fenqi Wang**, Kira Chan, Tyne Johnson-Dhillon, Jadeyn Trasolini, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Phonetic adaptation in conversation: the case of Cantonese tone merging. *The 186th Meeting of Acoustical Society of America* (ASA), Ottawa, Canada.
2024	Han Zhang, Morgan Glover, **Fenqi Wang**, Xizi Deng, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Speech adaptation in conversation: Effects of segment cue-weighting strategy for non-native speakers. *The 186th Meeting of Acoustical Society of America* (ASA), Ottawa, Canada.
2023	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural Network-Based Measure of Consonant Lenition in Parkinson's Disease. *The 185th Meeting of Acoustical Society of America* (ASA), Sydney, Australia.
2023	Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Quantitative Acoustic versus Deep Learning Metrics of Lenition. *The 19th Meeting of Phonetics & Phonology in German-speaking Countries*, Bern, Switzerland.
2023	**Fenqi Wang**, Delin Deng, & Ratree Wayland. Thing or sing: Modeling the phonetic variation of the interdental fricative /θ/ in accented English. *The 184th Meeting of Acoustical Society of America* (ASA), Chicago, USA.
2023	**Fenqi Wang** & Ratree Wayland. Acoustic properties of vocal emotions in American English and Mandarin Chinese. *The 184th Meeting of Acoustical Society of America* (ASA), Chicago, USA.

2023	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural networks' posterior probability as measure of effects of alcohol on speech. *The 184th Meeting of Acoustical Society of America* (ASA), Chicago, USA.
2022	**Fenqi Wang**, Delin Deng, & Ratree Wayland. The acoustic profiles of vocal emotions in Japanese: A corpus study with generalized additive mixed modeling. *The 183rd Meeting of Acoustical Society of America* (ASA), Nashville, USA.
2022	**Fenqi Wang**, Delin Deng, & Ratree Wayland. Modeling retroflex fricative variation in accented Mandarin. *The 183rd Meeting of Acoustical Society of America* (ASA), Nashville, USA.
2022	Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. Lenition measures: Neural networks' posterior probability versus acoustic cues. *The 183rd Meeting of Acoustical Society of America* (ASA), Nashville, USA.
2022	Rachel Meyer, Ratree Wayland, & **Fenqi Wang**. Measuring second language acquisition of Spanish lenition. *The 183rd Meeting of Acoustical Society of America* (ASA), Nashville, USA.
2022	**Fenqi Wang**, Ratree Wayland, & Kevin Tang. Native English listeners' processing of pitch accent in the perception of English lexical stress. *The 96th Annual Meeting of Linguistic Society of America* (LSA), Washington, D.C., USA.
2022	Delin Deng & **Fenqi Wang**. The Affrication of word-initial /ʒ/ in French Native Speech. *The 96th Annual Meeting of Linguistic Society of America* (LSA), Washington, D.C., USA.
2021	**Fenqi Wang**, Kevin Tang, & Ratree Wayland. Native English listeners' processing of pitch accent in the perception of English lexical stress. *Florida Psycholinguistic Meeting*, Tallahassee, USA (virtual).
2021	**Fenqi Wang**. An acoustic study of English vowels produced by Chinese learners of English. *UF Graduate Research Blitz*, Gainesville, USA.
2021	Jun Lyu & **Fenqi Wang**. Compound or single word: Phonological analysis of names in Shanghai Chinese. *The 33rd Meeting of the North American Conference on Chinese Linguistics* (NACCL-33), Chicago, USA (virtual).
2021	Jun Lyu, **Fenqi Wang**, & Elsi Kaiser. Antecedent prominence and the Chinese reflexive *ziji*. *The 45th Annual Penn Linguistics Conference* (PLC 45), Philadelphia, USA (virtual).
2021	**Fenqi Wang**, Kevin Tang, & Jun Lyu. The effect of pitch accent on the perception of English lexical stress by native and non-native listeners. *The 95th Annual Meeting of Linguistic Society of America* (LSA), USA (virtual).
2019	Jun Lyu, **Fenqi Wang**, Dawei Lu, & Yiyuan Chen. Locality or recency: A story of two Chinese reflexives. *The 50th Annual Meeting of the North East Linguistic Society* (NELS 50), Boston, USA.

Invited Talks

2023	**Fenqi Wang**. Recognizing emotions in speech: Humans vs. machines. Talk invited by Dr. Delin Deng, Department of Linguistics, University of Florida, USA.
2023	**Fenqi Wang**. Recognizing emotions in speech: Humans vs. machines. Talk invited by Dr. Sarah Moeller, Department of Linguistics, University of Florida, USA.
2023	**Fenqi Wang**. Dissertation writing and plan for graduate school. Talk invited by Dr. Edith Kaan, Department of Linguistics, University of Florida, USA.
2022	**Fenqi Wang**. An introduction to Montreal Forced Aligner. Workshop hosted by Phonetics and Phonology Reading Group, Department of Linguistics, University of Florida, USA.
2021	**Fenqi Wang**. The effect of pitch accent on the perception of English lexical stress: Evidence from native listeners. Colloquium talk invited by the Department of Linguistics, University of Florida, USA.
2021	**Fenqi Wang**. The analysis of the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin. Talk invited by the Department of Linguistics, University of Florida, USA.

2021	**Fenqi Wang**. The application of random forest classification on the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin. Talk invited by Dr. Fei Chen, Hunan University, Hunan, China.
2021	**Fenqi Wang**. Perceptual assimilation model and speech learning model. Talk invited by Yihan Chen in *LIN4721 Second Language Acquisition*, Department of Linguistics, University of Florida, USA.

Research Experience

2023 - 2024	Language and Brain Lab, Simon Fraser University, Canada Supervisor: Yue Wang Project: Adaptations in conversation: engaging voices, faces, brains and machines Role: Post-doctoral fellow Duties: Supervised data collection, analyzed data, drafted manuscript, and mentored undergraduate and graduate students
2023 - 2024	Language Learning and Development Lab, Simon Fraser University, Canada Supervisor: Henny Yeung Project: Linguistic analysis of infant- and child-directed speech in one's first and second languages Role: Post-doctoral fellow Duties: Designed experiments, supervised data collection, analyzed data, drafted manuscript, and mentored undergraduate and graduate students
2020 - 2023	Speech, Lexicon and Modeling Lab, University of Florida, USA Supervisors: Ratree Wayland & Kevin Tang Project: Smart electropalatography for linguistic and medical applications Role: Graduate research assistant Duties: Collected data, analyzed data, and drafted manuscript
2017 - 2018	Speech and Language Sciences Lab, Hong Kong Polytechnic University, China Supervisor: Yu-Yin Hsu Project: Lexical repetition and persistence of priming effects in Chinese comprehension Role: Research assistant Duties: Conducted eye-tracking experiments and analyzed data
2017 - 2018	Research Center of Brain and Cognitive Neuroscience, Liaoning Normal University, China Supervisor: Huanhuan Liu Project: General cognitive abilities and language switch of bilinguals Role: Research intern Duties: Conducted ERP experiments and processed ERP data using ERPLAB

Teaching Experience

2024	*LING330 Phonetics* 2024 Summer Simon Fraser University Role: Instructor
2023	*LING401 Topics in Phonetics* 2023 Fall Simon Fraser University Role: Instructor
2023	*IDS2935 Language and Emotion*

2023 Summer
University of Florida
Role: Graduate teaching assistant

2021 - 2023 *The Sound Structure of English* (Online)
2021 Spring, Summer, Fall; 2022 Spring, Summer, Fall
Harbour Education Co. Ltd.
Role: Teaching fellow

2022 *Educational Psychology: Education, School and Society* (Online)
2022 Summer
Harbour Education Co. Ltd.
Role: Teaching fellow

2018 - 2020 *Ling106 Introductory Linguistics*
2018 Fall, 2019 Spring & Fall, 2020 Spring
University of Kansas
Role: Graduate teaching assistant

2018 *American Spoken English, TOEFL, and IELTS*
Meten International Education Corporation
Role: Instructor

2017 *Neurology and Neuroscience*
University of Hong Kong
Role: Teaching assistant

Awards

2025	Research Mentoring-Pair Travel Award, ASHA, $750.
2024	VPR Research Travel Grant, Simon Fraser University, $700.
2022	Graduate Student Travel Fund, University of Florida, $300.
2022	Graduate Travel Fund, Department of Linguistics, University of Florida, $450.
2021	Graduate Travel Fund, Department of Linguistics, University of Florida, $450.
2020 - 2023	Graduate Research Assistantship, Department of Linguistics, University of Florida.
2020	Clark Coan Award for International Student Leadership, University of Kansas, $500.
2019	Graduate Scholarly Presentation Travel Fund, University of Kansas, $500.
2018 - 2020	Graduate Teaching Assistantship, Department of Linguistics, University of Kansas.
2017	Tin Ka Ping Visiting Fellowship, University of Hong Kong, $800.
2016	National Graduate Scholarship, China University of Geosciences (Wuhan), $3,000.
2014 - 2016	Graduate Student Scholarship, China University of Geosciences (Wuhan), $1,200.
2013	National English Contest for College Students Majoring in English, First Prize, Wuhan University of Engineering Science.
2011	National Aspiration Scholarship, Wuhan University of Engineering Science, $1,200.

Student Supervision

Undergraduates:

2023 - 2024	Language and Brain Lab, Simon Fraser University: Meagan Durana & Chihiro Mabohang
2023 - 2024	Language Learning and Development Lab, Simon Fraser University: Jiyun Choi, Pritika Purba, Sahibnoor Dhami, Eryn Ng, Marissa Zhu, Alexandra Samosseiko, Daniela Garcia, & Rasanpreet Dhami
2021 - 2023	Speech, Lexicon, and Modeling Lab, University of Florida: Sophia Vellozzi

Professional Service

Reviewer | *American Journal of Speech-Language Pathology*, *Journal of Phonetics*, *Journal of the Acoustical Society of America*, *BMC Psychology*, *PLOS One*, *Forum for Linguistic Studies*

Reviewer | Student poster competition (speech communication) at the 186th ASA Meeting

Research Skills

Programming languages:
- R (proficient), Python (proficient), MATLAB (basic)

EEG-related:
- EEGLAB/ERPLAB (proficient), Neuroscan (basic), Curry 8 (basic)

fMRI-related:
- FreeSurfer (basic), SPM 12 (basic), DPABI (basic)

Others:
- Praat (proficient), Paradigm (intermediate), PsychoPy (proficient), FindingFive (proficient), Linux (proficient), LaTeX (proficient)

Languages

Native | Mandarin Chinese & Gan Chinese
Near-native | English
Basic | French

Memberships

2025 - | American Speech-Language-Hearing Association
2021 - | Acoustical Society of America
2020 - | Association for Laboratory Phonology
2019 - | Linguistic Society of America
2017 - 2018 | Society for the Neurobiology of Language