Vivienne J. Zhang

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Education

The University of Chicago 2023 – June 2027 (expected)
B.A. in Linguistics, Minor in Computer Science GPA: 4.0/4.0
Relevant coursework: Semantics and Pragmatics (graduate); Topics in Semantics and Pragmatics (graduate); Syntax Seminar (graduate); Large Language Models; Natural Language Processing (audited); Mathematical Foundations of Machine Learning; Formal Languages; Discrete Mathematics

University of Oxford, St. Catherine's College, *Visiting Student* Oct – Dec 2025
Tutorials: Computational Linguistics; Language Documentation

Honors & Awards

Phi Beta Kappa 2026
Georgiana Simpson Scholar in the Humanities Collegiate Division, University of Chicago 2026
Robert Maynard Hutchins Scholar, University of Chicago 2025
Seidel Scholars Grant, for Dajing dialect documentation fieldwork 2025

Publications

Yunze Xiao[†], **Vivienne J. Zhang**[†], Chenghao Yang, Ningshan Ma, Weihao Xuan, and Jen-tse Huang. 2026. The Chameleon's Limit: Investigating Persona Collapse and Homogenization in Large Language Models. In *NeurIPS 2026 Workshop on Grounded User Simulation for Model Evaluation and Training* (*UserSim*). [arXiv] Also under review at NAACL.

[†]Equal contribution.

Research Experience

BA Honors Thesis, Department of Linguistics, University of Chicago Aug 2026 – present
Felicity Conditions on Projected Responses as a Basis for Relevance of Non-Answering Replies to Polar Questions
Advisor: Prof. Chris Kennedy

- Developing a formal account of replies that are uninformative about the questioned proposition and judged relevant; modeling relevance as a reply's bearing on either the questioned proposition or the felicity conditions of the response the question projects
- Extending the account to replies to directives and other speech acts

Independent Researcher, Mechanistic Analysis of LLM Commissive Sensitivity June 2026 – present
Supervisor: Dr. Zhewei Sun, Toyota Technological Institute at Chicago

- Proposed and lead a project investigating the performance of language models in comprehending commissive speech acts and adjusting their responses accordingly
- Compared log-probability measures of reliant and independent response options after commissive utterances in pilot experiments, using dialogues from the Cornell Movie-Dialogs Corpus
- Designing a minimal-pair dataset varying illocutionary force for probing and causal analysis of the model components driving this behavior

Research Collaborator, LLM Persona Collapse and Homogenization Oct 2025 – Apr 2026

- Initiated collaboration by bringing research ideas to a senior collaborator, leading to a joint proposal
- Led the initial literature review, built the prototype pipeline, and contributed to test dataset construction and developing a geometric framework measuring the population diversity of simulated personas across eight LLMs
- Co-first author on the resulting paper, ran additional experiments and analyses, drafted appendix sections, and edited the manuscript

Co-Investigator, Dajing Dialect Documentation June – Dec 2025 (on hiatus)
PI: Prof. Lenore Grenoble · Funded by the Seidel Scholars Grant

- Designed and independently conducted four weeks of fieldwork in Yueqing, China; recorded, transcribed, and translated speech data from 11 speakers and produced a meta-documentation of the project
- Built a public-facing archive website presenting translated recordings, cultural texts, and a lexicon

Research Assistant, Second Language Acquisition Group, McGill University June – Sep 2025
Directors: Prof. Heather Goad and Prof. Lydia White

- Synthesized literature on German noun plural morphology and prosody into testable hypotheses and presented findings at lab meetings
- Contributed to hypothesis development and experimental design for a study of prosodic transfer in L2 German learners with English and Mandarin L1s

Research Assistant, Phonology Laboratory, University of Chicago July 2023 – May 2025
Director: Prof. Alan C. L. Yu

- Designed an experiment testing the effect of lexical neighborhood density on phonetic perception and implemented an experiment on cue weighting in perception and production
- Ran participants through an EEG study protocol; verified and corrected forced-aligned VOT and sonorant duration measurements in Praat
- Contributed to building the Multi-ethnic Hong Kong Cantonese Corpus for the Study of Child-Directed Speech

Presentations

Vivienne J. Zhang. 2026. The Chameleon's Limit: Investigating Persona Collapse and Homogenization in Large Language Models. Poster, *UChicago Undergraduate Research Symposium*.

Alan Yu, Nathan Delisle, Nicholas Martin, **Vivienne Zhang**, Yao Yao, and Carol To. 2024. The Multi-ethnic Hong Kong Cantonese Corpus for the Study of Child-Directed Speech. Poster, *CorpusPhon*.

Course Research Projects

Sycophancy Toward Delusional Content in Large Language Models: Effects of User Vulnerability 2026
Individual project, Large Language Models

- Extended an existing AI-psychosis benchmark with additional cases and a condition in which the user discloses a history of mental illness, testing whether knowledge of a user's psychiatric vulnerability modulates sycophantic behavior

FelicityBench: Pragmatic (In)felicity Sensitivity in LLMs 2025
Team project with one collaborator, Natural Language Processing

- Tested LLMs' comprehension of felicity conditions and behavioral response to infelicitous utterances, using a dataset of 50 utterances across Searle's five speech act classes paired with felicitous, infelicitous, and edge-case contexts
- Reviewed the literature in pragmatic theory and LLM benchmarking that shaped the design, wrote the literature review, and implemented the base code

Leadership & Service

Founder & Chair, Chicago Linguistics Undergraduate Board Oct 2025 – present

- Founded the University of Chicago's undergraduate linguistics board; organize academic and social events and share department news and opportunities with members
- Launched the *College Journal of Linguistics at the University of Chicago*, an undergraduate research journal with rolling online publication and periodic print editions

Skills

Programming & computation: Python; LLM evaluation (log-probability scoring, LLM-as-judge); vLLM, Hugging Face
Experimental & field methods: Qualtrics, Gorilla; EEG data collection; Praat, ELAN, FLEx
Languages: Mandarin (native); English (fluent); French (fluent)