

# Xiaomeng (Miranda) Zhu

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xiaomeng-zhu.github.io

EDUCATION	<b>Wellesley College</b> , Wellesley, MA	Expected May 2023
	Candidate for Bachelor of Arts	GPA: 3.95/4.00
	Double Major in Computer Science and Cognitive and Linguistic Sciences (Linguistics concentration)	
	<b>Massachusetts Institute of Technology</b> , Cambridge, MA	
	Cross-registered Student	
	<i>Relevant Courses:</i> Natural Language Processing, Machine Learning, Algorithms, Semantics, Syntax	
PUBLICATIONS	Meng Hui Liu*, <b>Xiaomeng Zhu*</b> , and Carolyn Jane Anderson, XiaoshuoNLP: A Natural Language Processing Pipeline for Chinese Literary Texts (In Progress)	
RESEARCH EXPERIENCE	<b>Science Center Summer Research Program</b>	May 2022 - Present
	<i>Advisor: Carolyn Anderson</i>	Wellesley, MA
	Implement an NLP pipeline for processing Chinese literary texts, enhance the accuracy of coreference resolution result by filtering and merging character clusters, and evaluate existing Chinese NLP tools on an original literary dataset	
	<b>Cognitive and Linguistic Sciences Honors Thesis</b>	May 2022 - Present
	<i>Advisor: Angela Carpenter</i>	Wellesley, MA
	Examine the shift in Chinese vowel quality in Chinese-English insertional code-switching environments, design speech production tasks to elicit code-switched speech from subjects, and run statistical models on collected vowel formants	
	<b>Wellesley College Sociolinguistics Lab</b>	Feb - Aug 2022
	<i>Advisor: Sabriya Fisher</i>	Wellesley, MA
	Implemented a text processing script in Python to automatically extract auxiliaries from texts, examined the frequency distribution of phonetically-similar auxiliaries, and coded phonetic data from the CORAAL corpus using Praat	
	<b>MIT Experimental Syntax and Semantics Lab</b>	Feb 2021 - May 2022
	<i>Faculty Advisor: Martin Hackl, Direct Advisor: Leo Rosenstein</i>	Cambridge, MA
	Investigated felicity differences between determiners using an experimental approach, implemented experimental interface on PCIBex, analyzed data in R Studio using a mixed-effect model, and assisted with data interpretation	
	<b>MIT Department of Linguistics</b>	Dec 2021 - Mar 2022
	<i>Advisor: Danfeng Wu</i>	Cambridge, MA
	Conducted in-person experiments with participants to examine the prosodic pattern in either/or constructions, monitored subjects' behavior and recording qualities, and annotated recording files to facilitate prosody extraction	
	<b>MIT Media Lab</b>	Jun - Aug 2020
	<i>Faculty Advisor: Alex Pentland, Direct Advisor: Mohsen Bahrami</i>	Cambridge, MA
	Implemented an interactive dashboard that visualized mobility behavior and economic growth using react.js	
PRESENTATION	<b>XiaoshuoNLP: A Natural Language Processing Pipeline for Chinese Literary Texts</b>	
	<i>Tanner Conference, Wellesley College</i>	Nov 2022

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\*Equal contribution

	Wellesley College Science Complex Opening Celebration Poster Session	Oct 2022
	Wellesley College Science Center Summer Research Program Poster Fair	Aug 2022
<b>TEACHING EXPERIENCE</b>	<b>CS 240: Foundations of Computer Systems</b> Teaching Assistant <i>Instructor: Andrew Davis, Franklyn Turbak</i>	Spring 2022, Fall 2022 Wellesley College
	<b>CS 204: Front-End Web Development</b> Teaching Assistant <i>Instructor: Scott Anderson</i>	Term 2, Fall 2020 Wellesley College
<b>CLASS PROJECTS</b>	<b>Natural Language Processing Resources in Portuguese</b> <i>CS333: Natural Language Processing</i> Surveyed and inspected downstream models in Portuguese	Oct 2022
	<b>Tense in Mandarin Chinese</b> <i>LING 244: Language: Form and Meaning</i> Analyzed main issues of controversy regarding the existence of Tense in Mandarin Chinese and proposed a theory where Tense is undefined in the deep structure	Oct - Dec 2021
	<b>Phonetics and Phonology of Korean</b> <i>LING 240: The Sounds of Language</i> Designed and held experiments with a native Korean speaker to examine Koreana phonetics and phonology, analyzed waveforms and spectrograms in Praat, and validated results against existing theories	Feb - Apr 2021
	<b>Social Variation of Words and Sounds in American Dialect</b> <i>LING 238: Sociolinguistics</i> Evaluated social variation patterns of words and phonemes in North American English, identified dialect regions using isoglosses, and verified results against William Labov's first principle on language change	Oct - Dec 2020
<b>INDUSTRY EXPERIENCE</b>	<b>Shanghai Baosight Software Co., Ltd.</b> Machine Learning Intern Analyzed steel defect patterns using machine learning algorithms such as decision tree, clustering, and PCA	Spring 2021 Shanghai, China
<b>LANGUAGES AND TECHNICAL SKILLS</b>	<b>Programming Languages:</b> Python, R, C, Java, Racket, SML <b>Web Development:</b> HTML, CSS, JavaScript, React.js <b>Machine Learning:</b> TensorFlow, PyTorch <b>Softwares:</b> Praat, Audacity <b>Languages:</b> English and Mandarin Chinese (native proficiency), Spanish (working proficiency)	