

WORK EXPERIENCE

- AUG. 2023–PRESENT **LLM Research Engineer**
Bloomberg AI, NYC, USA
- Benchmarking open-sourced large language models (LLMs) on finance-related benchmarks
 - Finetuning LLMs on specific finance-related tasks
 - Continued pre-training LLMs to inject financial domain knowledge
 - Building retrieval systems and leveraging retrieval in model training and evaluation
 - Supporting production teams to use LLMs in products

EDUCATION

- AUG. 2018–AUG. 2023 **Ph.D. in Computer Science**
University of North Carolina at Chapel Hill, Chapel Hill, USA
Advised by Mohit Bansal
- Research topic was natural language processing (NLP)
 - Mainly focused on language generation, including question generation, machine translation, summarization, and language modeling
 - Thesis: Towards Reliable and Inclusive Natural Language Generation
- SEP. 2011–MAR. 2018 **M.E. and B.E. in Communication Engineering**
Beijing University of Posts and Telecommunications, Beijing, China

INTERNSHIP EXPERIENCE

- MAY 2022–AUG. 2022 **Software Engineer Intern**
Bloomberg AI, NYC, USA
Supervised by Ozan Irsoy, Steven Lu, Shijie Wu, David Rosenberg, and Mark Dredze
- Worked on language modeling
 - To overcome the over-generalization problem of MLE-trained LMs, we propose a novel training objective, MixCE, that combines forward and reverse cross-entropies
- MAY 2021–AUG. 2021 **Research Intern**
Facebook AI, remote from Chapel Hill, USA
Supervised by Vishrav Chaudhary and Francisco (Paco) Guzmán
- Worked on multilingual tokenization
 - Analyzed how downstream translation performance is affected by the language imbalance in the data used to train a multilingual tokenizer
- JUNE 2020–AUG. 2020 **Research Intern**
Microsoft Research, remote from Chapel Hill, USA
Supervised by Asli Celikyilmaz
- Worked on email thread summarization
 - Collected a dataset with email threads and human-written summaries, and benchmarked multiple generation models on this dataset
- SEP. 2016–JUNE 2018 **Research Intern**
CSLT at Tsinghua University, Beijing, China
Supervised by Dong Wang and Yang Feng
- Worked on machine translation
 - Augmented neural machine translation models with a memory component that stores discrete dictionary information

SELECTED AWARDS

- 2023 [EECS Rising Star](#)
- 2021 [Bloomberg Data Science PhD Fellowship](#)
- 2015 Excellent Graduate
- 2014, 2013 National Scholarship

PUBLICATIONS

- 2023 David Wan, **Shiyue Zhang**, and Mohit Bansal. [HistAlign: Improving Context Dependency in Language Generation by Aligning with History](#) EMNLP 2023
- 2023 **Shiyue Zhang**, Shijie Wu, Ozan Irsoy, Steven Lu, Mohit Bansal, Mark Dredze and David Rosenberg. [MixCE: Training Autoregressive Language Models by Mixing Forward and Reverse Cross-Entropies](#) ACL 2023
- 2023 Derek Tam, Anisha Mascarenhas, **Shiyue Zhang**, Sarah Kwan, Mohit Bansal, Colin Raffel. [Evaluating the Factual Consistency of Large Language Models Through Summarization](#) Findings of ACL 2023
- 2023 **Shiyue Zhang***, David Wan*, and Mohit Bansal. [Extractive is not Faithful: An Investigation of Broad Unfaithfulness Problems in Extractive Summarization](#) ACL 2023
- 2023 Swarnadeep Saha, **Shiyue Zhang**, Peter Hase, Mohit Bansal. [Summarization Programs: Interpretable Abstractive Summarization with Neural Modular Trees](#) ICLR 2023
- 2022 Xiang Zhou, **Shiyue Zhang**, and Mohit Bansal. [Masked Part-Of-Speech Model: Does modeling long context help unsupervised POS-tagging?](#) NAACL 2022
- 2022 Yinuo Hu*, **Shiyue Zhang***, Viji Sathy, A. T. Panter, and Mohit Bansal. [SETSum: Summarization and Visualization of Student Evaluations of Teaching](#) NAACL Demo 2022
- 2022 **Shiyue Zhang**, Vishrav Chaudhary, Naman Goyal, James Cross, Guillaume Wenzek, Mohit Bansal, and Francisco Guzman. [How Robust is Neural Machine Translation to Language Imbalance in Multilingual Tokenizer Training?](#) AMTA 2022
- 2022 **Shiyue Zhang**, Benjamin Frey, and Mohit Bansal. [How can NLP Help Revitalize Endangered Languages? A Case Study and Roadmap for the Cherokee Language](#) ACL 2022 Theme Track
- 2021 **Shiyue Zhang** and Mohit Bansal. [Finding a Balanced Degree of Automation for Summary Evaluation](#) EMNLP 2021
- 2021 **Shiyue Zhang**, Benjamin Frey, and Mohit Bansal. [Cherokee-English Machine Translation Demo with Quality Estimation and Corrective Feedback](#) ACL Demo 2021, [News: The sanctity of Cherokee]
- 2021 **Shiyue Zhang**, Asli Celikyilmaz, Jianfeng Gao, and Mohit Bansal. [EmailSum: Abstractive Email Thread Summarization](#) ACL 2021
- 2021 Zineng Tang, **Shiyue Zhang**, Hyounghun Kim, and Mohit Bansal. [Continuous Language Generative Flow](#) ACL 2021
- 2020 **Shiyue Zhang**, Benjamin Frey, and Mohit Bansal. [ChrEn: Cherokee-English Machine Translation for Endangered Language Revitalization](#) EMNLP 2020
- 2020 Peter Hase, **Shiyue Zhang**, Harry Xie, and Mohit Bansal. [Leakage-Adjusted Simulatability: Can Models Generate Non-Trivial Explanations of Their Behavior in Natural Language?](#) Findings of EMNLP 2020
- 2019 **Shiyue Zhang** and Mohit Bansal. [Addressing Semantic Drift in Question Generation for Semi-Supervised Question Answering](#) EMNLP 2019

- 2018 Jiyuan Zhang, Zheling Zhang, **Shiyue Zhang**, and Dong Wang. *VV-Couplet: An open source Chinese couplet generation system* APSIPA ASC 2018
- 2017 Lantian Li, Zhiyuan Tang, Dong Wang, Andrew Abel, Yang Feng, and **Shiyue Zhang**. *Collaborative learning for language and speaker recognition* NCMMSC 2017
- 2017 Yang Feng, **Shiyue Zhang**, Andi Zhang, Dong Wang, and Andrew Abel. *Memory-augmented Neural Machine Translation* EMNLP 2017
- 2017 **Shiyue Zhang**, Gulnigar Mahmut, Dong Wang, and Askar Hamdulla. *Memory-augmented Chinese-Uyghur Neural Machine Translation* APSIPA ASC 2017
- 2017 Aodong Li, **Shiyue Zhang**, Dong Wang, and Thomas Fang Zheng. *Enhanced Neural Machine Translation by Learning from Draft* APSIPA ASC 2017
- 2017 Jiyuan Zhang, Yang Feng, Dong Wang, Yang Wang, Andrew Abel, **Shiyue Zhang**, and Andi Zhang. *Flexible and Creative Chinese Poetry Generation Using Neural Memory* ACL 2017
- 2017 Dong Wang, Thomas Fang Zheng, Zhiyuan Tang, Ying Shi, Lantian Li, **Shiyue Zhang**, Hongzhi Yu, Guanyu Li, Shipeng Xu, Askar Hamdulla, Mijit Ablimit, and Gulnigar Mahmut. *M2ASR: Ambitions and first year progress* O-COCOSDA 2017
- 2017 Zhiyuan Tang, Ying Shi, Dong Wang, Yang Feng, **Shiyue Zhang**. *Memory visualization for gated recurrent neural networks in speech recognition* ICASSP 2017

TECHNICAL REPORTS

- 2017 **Shiyue Zhang**, Pengtao Xie, Dong Wang, and Eric P. Xing. *Medical Diagnosis From Laboratory Tests by Combining Generative and Discriminative Learning* on arXiv
- 2017 Yang Wang, Dong Wang, **Shiyue Zhang**, Yang Feng, Shiyao Li, and Qiang Zhou. *Deep Q-trading*

PROFESSIONAL SERVICES

AREA CHAIR	EACL 2024, NAACL 2024, EMNLP 2024
SESSION CHAIR	AMTA 2022
REVIEWER	ACL Rolling Review, NSF Proposal
CONFERENCE REVIEWER	ACL 2023, EMNLP 2021/2022, COLING 2022, AAAI 2020/2022, AKBC 2020/2022
JOURNAL REVIEWER	Natural Language Engineering (JNLE)
WORKSHOP REVIEWER	SRW@ACL 2020/2021, Eval4NLP 2020/2021, SRW@EACL 2023

SKILLS

Deep Learning Frameworks:	PyTorch, TensorFlow
Programming Languages:	Python
Speaking Languages:	Chinese (Native), English (Full Professional Proficiency)