Weizhi Wang

CONTACT
INFORMATION

768 Cypress Walk
Goleta, CA, 93117

weizhiwang@ucsb.edu
[Personal Website] [Github Repos]

RESEARCH
FOCUS

I am focusing on the field of Natural Language Processing. My research focus and past experience can be summarized as the following aspects:

- **Multimodal Large Language Models**: Augmenting LLMs with visual-knowledge (ICLR'23)

- **Long-Context Large Language Models**: Long-context LLMs with memory-cache augmentation (NeurIPS'23)

- **Data-Centric Research**: Filtering and Demistifying the pre-training and instruction-tuning data for LLMs and Multimodal LLMs

Additionally, I also worked on some application areas like Multilingual Machine Translation and Speech-to-Text Translation (EMNLP'21, AAAI'22, EMNLP'22); Dialogue Systems and AI Chatbot Agents (SIGIR'22, Alexa SocialBot).

EDUCATION

University of California Santa Barbara, CA, USA   Sep 2022 – Jun 2026
Ph.D. Computer Science
Advisor: Prof. Xifeng Yan

Rutgers University, NJ, USA   Aug 2019 – Jun 2021
M.S. Computer Science

Xi'an Jiaotong University, Shaanxi, China   Aug 2015 – Jun 2019
B.E. Electrical Engineering

PUBLICATIONS
(TIME ORDER)

[1] Augmenting Language Models with Long-Term Memory.
Weizhi Wang, Li Dong, Hao Cheng, Xiaodong Liu, Xifeng Yan, Jianfeng Gao, Furu Wei.
NeurIPS 2023. [arXiv] [code(665⭐)]

[2] GauchoChat: Towards Proactive, Controllable, and Personalized Social Conversation.
Hong Wang, **Weizhi Wang**, Rajan Saini, Marina Zhukova, Xifeng Yan.
Amazon Proceedings 2023. [Paper]

[3] Visually-Augmented Language Modeling.
Weizhi Wang, Li Dong, Hao Cheng, Haoyu Song, Xiaodong Liu, Xifeng Yan, Jianfeng Gao, Furu Wei.
ICLR 2023. [arXiv] [code]

[4] Non-Parametric Domain Adaptation for End-to-End Speech Translation.
Yichao Du*, **Weizhi Wang***, Zhirui Zhang, Boxing Chen, Jun Xie, Tong Xu.
EMNLP 2022. **Oral Presentation, TOP 3%.** (*Equal Contribution) [arXiv] [code]

[5] Task-Oriented Dialogue System as Natural Language Generation.
Weizhi Wang, Zhirui Zhang, Junliang Guo, Yinpei Dai, Boxing Chen, and Weihua Luo.
SIGIR 2022. [arXiv] [code]

[6] Regularizing End-to-End Speech Translation with Triangular Decomposition Agreement.
Yichao Du, Zhirui Zhang, **Weizhi Wang**, Boxing Chen, Jun Xie, Tong Xu, and Weihua Luo.
AAAI 2022. [arXiv] [code]

[7] Rethinking Zero-shot Neural Machine Translation: From a Perspective of Latent Variables.
Weizhi Wang, Zhirui Zhang, Yichao Du, Boxing Chen, and Weihua Luo.
EMNLP Findings 2021. [arXiv] [code]

COMPETITIONS	The Fifth Amazon Alexa Prize SocialBot Grand Challenge Nov 2022 - Sep 2023

Champion🏆, winning $250,000 first place bonus
Description: As a member of *GauchoChat* team, we developed a proactive, controllable, and personalized social chatbot.

PROFESSIONAL SERVICES
– Conference Reviewer: KDD 2023, NeurIPS 2023, ICLR 2024, SDM 2024.
– Journal Reviewer: TASLP, TALLIP.

RESEARCH EXPERIENCE

TikTok, San Jose, US   Sep 2023 – Dec 2023
Mentor: Dr. Heng Wang
Intelligent Creation Group
Description: Vision-language pre-training with pruned high-quality dataset.

Microsoft Research Asia, Beijing, CN   Nov 2021 – May 2023
Mentor: Dr. Li Dong, Dr. Hao Cheng, Dr. Xiaodong Liu
Nature Language Computing Group
Description: Large Language Models with visual-knowledge enhancement, Augmenting Large Language Models with long-term memory.

Alibaba DAMO Academy, Hangzhou, CN   Sep 2020 – Nov 2021
Mentor: Dr. Boxing Chen, Dr. Zhirui Zhang
Machine Translation Group, Language Technology Lab
Description: Task-Oriented Dialogue Systems, Multilingual Neural Machine Translation, and Speech-to-Text Translation.

AWARDS
– Academic Excellence Fellowship. University of California Santa Barbara. 2022.
– Outstanding Graduate Academic Performance Award. Rutgers University. 2021.
– Siyuan Scholarship. Xi'an Jiaotong University. 2016 & 2018.