Weizhi Wang

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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:

- Multi-modal Large Language Models: Visually-augmented Language Modeling (ICLR'23); Language Modeling Augmented with Long-term Memory (NeurIPS'23)
- Multilingual and Multi-modal Translation: Zero-shot/Few-shot Translation in Large-scale Multilingual Translation Systems (EMNLP'21); End-to-End Speech-to-Text Translation (AAAI'22, EMNLP'22)
- Dialogue Systems: Knowledge-enhanced Dialogue Systems with LLMs (SIGIR'22)

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, GPA: 4.0/4.0

Xi'an Jiaotong University, Shaanxi, China B.E. Electrical Engineering, GPA: 84.0/100.0

Aug 2015 – Jun 2019

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]

[2] Visually-Augmented Language Modeling.

Weizhi Wang, Li Dong, Hao Cheng, Haoyu Song, Xiaodong Liu, Xifeng Yan, Jianfeng Gao, Furu Wei.

ICLR 2023. [arXiv] [code]

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

[4] 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]

[5] 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]

[6] 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

<u>Description</u>: As a member of *GauchoChat* team, we developed a proactive, controllable, and personalized social chatbot.

Professional

- Conference Reviewer: KDD 2023, NeurIPS 2023, ICLR 2024.

SERVICES

- Journal Reviewer: TASLP, TALLIP.

RESEARCH EXPERIENCE TikTok, San Jose, US Mentor: Dr. Heng Wang

Intelligent Creation Group Description: Vision-language pre-training with pruened high-quality dataset.

Microsoft Research Asia, Beijing, CN

Nov 2021 – May 2023

Sep 2023 – Dec 2023

Mentor: Dr. Li Dong, Dr. Cheng Hao, 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.