

TIANBAO XIE

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RESEARCH FOCUS AREAS

My primary area of focus is Natural Language Processing. Under the mentorship of my advisors, I am particularly interested in the following subfields: Executable Language Grounding (XLang), Structured Knowledge Grounding, Semantic Parsing/Code Generation, as well as Applications and advancements pertaining to Large Language Models (LLMs). Furthermore, I am eager to explore the intersection of this research with other fields such as Reinforcement Learning (RL) and robotics.

EDUCATION

The University of Hong Kong • Hong Kong Aug. 2022 – Jun. 2026 (expected)
Ph.D. • Natural Language Processing with Dr. Tao Yu (core), Dr. Lingpeng Kong and Prof. Kao, Benjamin C.M.
Harbin Institute of Technology • Harbin Aug. 2018 – Jun. 2022
Bachelor of Engineering • *Computer Science* • *Honors School*

PROJECTS & PUBLICATIONS (SELECTED)

XLang Agents Series Mar. 2023 – Now
In Progress
Binding Language Models in Symbolic Languages Feb. 2022 – Oct. 2022
ICLR 2023 Spotlight
Zhoujun Cheng*, **Tianbao Xie***, Peng Shi, Chengzu Li, Rahul Nadkarni, Yushi Hu, Caiming Xiong, Dragomir Radev, Mari Ostendorf, Luke Zettlemoyer, Noah A. Smith, Tao Yu
In-Context Learning for Few-Shot Dialogue State Tracking Jun. 2022 – Mar. 2022
EMNLP 2022 Findings
Yushi Hu, Chia-Hsuan Lee, **Tianbao Xie**, Tao Yu, Noah A. Smith, Mari Ostendorf
UnifiedSKG: Unifying and Multi-Tasking Structured Knowledge Grounding with Text-to-Text Language Models Jun. 2021 – Jan. 2022
EMNLP 2022 Oral
Tianbao Xie*, Chen Henry Wu*, Peng Shi, Ruiqi Zhong, Torsten Scholak, Michihiro Yasunaga, Chien-Sheng Wu, Ming Zhong, Pengcheng Yin, Sida I. Wang, Victor Zhong, Bailin Wang, Chengzu Li, Connor Boyle, Ansong Ni, Ziyu Yao, Dragomir Radev, Caiming Xiong, Lingpeng Kong, Rui Zhang, Noah A. Smith, Luke Zettlemoyer, Tao Yu
Don't be Contradicted with Anything! CI-ToD: Towards Benchmarking Consistency for Task-oriented Dialogue System Jan. 2021 – May. 2021
EMNLP 2021
Libo Qin, **Tianbao Xie**, Shijue Huang, Qiguang Chen, Xiao Xu, Wanxiang Che

HONORS (SELECTED)

Hong Kong PhD Fellowship UGC, Hong Kong SAR, Apr. 2022
Kwang-Hua Scholarship Kwang-Hua Education Foundation, China, Nov. 2021
National Scholarship, twice Ministry of Education, China, Oct. 2020, Oct. 2019
MCM, Meritorious Winner Consortium for Mathematics and Its Application, America, Apr. 2020

COMMUNITY WORK

Reviewer ACL, EMNLP, ARR, ICLR
Paper collection Chain-of-ThoughtsPapers (over 1.5k stars), XLang paper reading, etc

MISCS

- Programming languages: Python \gg SQL \approx Java > C/C++
- Frameworks: OpenAI APIs & LangChain, etc. > transformers > PyTorch > stable-baselines-3 & gym > Flask (a little) + Bash, Git, Markdown, \LaTeX , etc.
- Background Knowledge: NLP (LLMs, semantic parsing, structured knowledge, etc.) \gg RL > Robotics > CV