

Runchu Tian

University of Illinois Urbana-Champaign, 506 S. Wright St.
Urbana, IL 61801
Tel: (477) 902-6836
Email: runchutian@gmail.com

BACHELOR EDUCATION

Tsinghua University

Weiyang college Sep. 2020 - Present
Major in Mathematics and Physics GPA: 3.85 Second year total GPA: 4.00/4 TOEFL: 110/120

Significant Courses and Scores

Linear Algebra	:A+	Fundamentals of Physics (1)/(2)/(3)	:A-/A/A
Logic, Language, and Philosophy	:A	Basis of Machine Learning Method and Application	:A

RESEARCH EXPERIENCE

Tsinghua University, Natural Language Processing Lab

Adviser: Zhiyuan Liu

Project: *Exploring Format Consistency for Instruction Tuning* Jan. 2023 - June 2023

- Evaluated the effect of format consistency of instructions among 3 major multi-tasking datasets
- Designed a pipeline for conversion of different instruction styles in diverse dataset with LLM
- Proposed a denoising technique to ensure the quality of instruction conversion by multi-sample and perplexity probe

Project: *ToolLLM: Facilitating Large Language Models to Master 16000+ Real-world API* Mar 2023 - June 2023

- Proposed a method to boost LLM tool calling efficiency based on Tree of Thought

Project: *Evaluating Large Language Models for Code Debugging* Sept. 2023 - Feb 2024

- Constructed a comprehensive debugging benchmark with source data from *LeetCode* and bug implantation with GPT-4
- Evaluated the debugging capabilities of different models with different bugs under different scenarios
- Compared the relationship between the task of code generation and debugging

University of Washington, Paul G. Allen School of Computer Science & Engineering

Adviser: Sheng Wang

Project: *Enhancing Gene Embedding with knowledge from LLMs* June. 2023 - Sept. 2023

- Enhanced gene graph embedding with text embedding vector from LLMs and retrieved literature by feature fusing
 - Design a dynamic literature retrieval framework with LLMs
-

PUBLICATION

Title: *Evaluating Large Language Models for Code Debugging* Accepted by ACL 2024

Authors: Runchu Tian, Yining Ye, Yujia Qin, Zhiyuan Liu...

Title: *Exploring Format Consistency for Instruction Tuning* Accepted by TMLR

Authors: Shihao Liang, Runchu Tian, Kunlun Zhu, Yujia Qin, Huadong Wang, Xin Cong, Zhiyuan Liu, Xiaojiang Liu, Maosong Sun

Title: *ToolLLM: Facilitating Large Language Models to Master 16000+ Real-world API* Accepted by ICLR 2024

Authors: Yujia Qin, Shihao Liang, Yining Ye, Kunlun Zhu, Lan Yan, Yaxi Lu, Yankai Lin, Xin Cong, Xiangru Tang, Bill Qian, Sihan Zhao, Lauren Hong, Runchu Tian, Ruobing Xie, Jie Zhou, Mark Gerstein, Dahai Li, Zhiyuan Liu, Maosong Sun

HONORS AND AWARDS

Academic Excellence Scholarship (Twice)

2021/2022