

Hongyi Liu

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About me

As an undergraduate student majoring in computer science, I have great interest in machine learning, especially those involved with natural language processing (NLP). As the rapid development of large language models (LLMs), I am determined to explore the potential of language models and apply certain techniques to conquer various related real-world problems.

Links

 [GitHub](#)
 [Homepage](#)
 [Google Scholar](#)

Coursework

COMPUTER SCIENCE

Program Design
Data Structure
Computer Architecture
Operating System
Compiler Design
Machine Learning
Deep Learning
Computer Network
Advanced Algorithm

MATHEMATICS

Linear Algebra
Mathematical Analysis
Algebraic Structures
Mathematical Logics
Computational Complexity

Skills

PROGRAMMING

Python • C/C++ • JAVA • Golang

MISCELLANEOUS

Shell • \LaTeX • Microsoft Office • Git

Honors

EXCELLENCE SCHOLARSHIP

HUAWEI SCHOLARSHIP - 2022

ZHIYUAN HONORARY SCHOLARSHIP
- 2020 & 2021 & 2022

Awarded to students enrolled in
Zhiyuan Honor Program, Top 2% in
SJTU.

Education

SHANGHAI JIAO TONG UNIVERSITY

ACM CLASS, ZHIYUAN COLLEGE

📅 Sep 2020 – Today

📍 Shanghai, China

- Bachelor's degree in Computer Science, Member of ACM Honors Class
- GPA (2020.9 - Today): 3.93/4.30, rank (2020.9 - Today): 8/36
- English Proficiency: TOEFL 104, CET-6 648/710

Research Experience

INTERNSHIPS

PLUS Lab @UCLA - UNDERGRADUATE VISITOR

📅 May 2023 – Today

📍 remote

- **Advisor:** Prof. Nanyun (Violet) Peng, PhD Sidi Lu
- **Research Interest:** Mainly focus on evaluation metric of open ended machine generation.

Blender Lab @UIUC - UNDERGRADUATE VISITOR

📅 May 2023 – Oct 2023

📍 remote

- **Advisor:** Prof. Heng Ji, Post-doc Payam Karisani, PhD Qingyun Wang
- **Research Interest:** Mainly focus on information extraction and transfer learning techniques in life science domains.

UCSB NLP Group - UNDERGRADUATE VISITOR

📅 Jul 2022 – April 2023

📍 remote

- **Advisor:** Prof. Lei Li, Researcher Jingjing Xu
- **Research Interest:** Mainly focus on In-context Learning (ICL), machine translation and also multi-task or multi-lingual potential of language models.

Projects

EVALUATION ON OPEN ENDED GENERATION WITH META DISTRIBUTION MODELING (MDM)

PLUS LAB

📅 Aug 2023 – Today

📍 remote

- Currently under way. The motivation is to build up a distribution of generative language models.

NAME TAGGING UNDER DOMAIN SHIFT VIA METRIC LEARNING FOR LIFE SCIENCES

BLENDER NLP LAB

📅 May 2023 – Oct 2023

📍 remote

- Name tagging as classical information extraction task challenges even LLMs, especially for life science domains.
- We explore methods that boost the knowledge transfer ability from the biomedical domain to the chemical domain.

MULTILINGUAL MACHINE TRANSLATION WITH LARGE LANGUAGE MODELS: EMPIRICAL RESULTS AND ANALYSIS

UCSB NLP GROUP

📅 Feb 2023 – April 2023

📍 Shanghai AI Lab

- In-context learning (ICL) has been proved promising in NLU tasks but ICL performance on NLG tasks has not been sufficiently investigated.
- We conduct massive experiments in an attempt to compare ICL abilities in machine translation of neural models with varying structures and scales.