

Qinyuan Ye

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Research Interests

Natural Language Processing

- Few-shot and zero-shot learning; task-level generalization; meta-learning
- Learning from natural language explanations and instructions

Education

Department of Computer Science, University of Southern California
Ph.D. Student in Computer Science, Advisor: Prof. Xiang Ren

Los Angeles, CA, U.S.
8/2019–Present

Department of Automation, Tsinghua University
B.Eng. in Automation

Beijing, China
8/2015–7/2019

Publications

How Predictable Are Large Language Model Capabilities? A Case Study on BIG-bench [\[Paper\]](#)

Qinyuan Ye, Harvey Yiyun Fu, Xiang Ren, Robin Jia
In Proceedings of Findings of EMNLP 2023.

Estimating Large Language Model Capabilities without Labeled Test Data [\[Paper\]](#)

Harvey Yiyun Fu, Qinyuan Ye, Albert Xu, Xiang Ren, Robin Jia
In Proceedings of Findings of EMNLP 2023.

FiD-ICL: A Fusion-in-Decoder Approach for Efficient In-Context Learning [\[Paper\]](#)

Qinyuan Ye, Iz Beltagy, Matthew E. Peters, Xiang Ren, Hannaneh Hajishirzi
In Proceedings of ACL 2023.

Eliciting and Understanding Cross-task Skills with Task-Level Mixture-of-Experts [\[Paper\]](#)

Qinyuan Ye, Juan Zha, Xiang Ren
In Proceedings of Findings of EMNLP 2022.

Sparse Distillation: Speeding Up Text Classification by Using Bigger Student Models [\[Paper\]](#)

Qinyuan Ye, Madian Khabsa, Mike Lewis, Sinong Wang, Xiang Ren, Aaron Jaech
In Proceedings of NAACL 2022 (Oral Presentation).

Refining Language Models with Compositional Explanations [\[Paper\]](#)

Huihan Yao, Ying Chen, Qinyuan Ye, Xisen Jin, Xiang Ren
In Proceedings of NeurIPS 2021 (Spotlight Presentation).

CrossFit: A Few-shot Learning Challenge for Cross-task Generalization in NLP [\[Paper\]](#)

Qinyuan Ye, Bill Yuchen Lin, Xiang Ren
In Proceedings of EMNLP 2021.

On the Influence of Masking Policies in Intermediate Pre-training [\[Paper\]](#)

Qinyuan Ye, Belinda Z. Li, Sinong Wang, Benjamin Bolte, Hao Ma, Wen-tau Yih, Xiang Ren, Madian Khabsa
In Proceedings of EMNLP 2021.

Learning to Generate Task-specific Adapters from Task Description [\[Paper\]](#)

Qinyuan Ye, Xiang Ren

In Proceedings of ACL-IJCNLP 2021 (Short Paper).

Semi-Automated Protocol Disambiguation and Code Generation [\[Paper\]](#)

Jane Yen, Tamás Lévai, Qinyuan Ye, Xiang Ren, Ramesh Govindan, Barath Raghavan

In Proceedings of ACM SIGCOMM 2021.

Teaching Machine Comprehension with Compositional Explanations [\[Paper\]](#)

Qinyuan Ye, Xiao Huang, Elizabeth Boschee, Xiang Ren

In Proceedings of Findings of EMNLP 2020.

LEAN-LIFE: A Label-Efficient Annotation Framework Towards Learning from Explanation [\[Paper\]](#)

Dong-Ho Lee*, Rahul Khanna*, Bill Yuchen Lin, Jamin Chen, Seyeon Lee, Qinyuan Ye, Elizabeth Boschee, Leonardo Neves and Xiang Ren

In Proceedings of ACL 2020 (Demo Track).

Learning from Explanations with Neural Module Execution Tree [\[Paper\]](#)

Ziqi Wang*, Yujia Qin*, Wenxuan Zhou, Jun Yan, Qinyuan Ye, Leonardo Neves, Zhiyuan Liu, Xiang Ren

In Proceedings of ICLR 2020.

Looking Beyond Label Noise: Shifted Label Distribution Matters in Distantly Supervised Relation Extraction [\[Paper\]](#)

Qinyuan Ye*, Liyuan Liu*, Maosen Zhang, Xiang Ren

In Proceedings of EMNLP-IJCNLP 2019 (Oral Presentation).

Internships

Research Intern

Office of Applied Research, Microsoft

Mentors: Fereshte Khani, Maxamed Axmed

Redmond, WA, U.S.

5/2023–8/2023

Research Intern

AllenNLP, Allen Institute for AI

Mentors: Iz Beltagy, Matthew E. Peters, Hannaneh Hajishirzi

Seattle, WA, U.S.

5/2022–8/2022

Research Intern (Remote)

AI Integrity, Facebook AI

Manager: Aaron Jaech; Collaborators: Madian Khabsa, Sinong Wang, Mike Lewis, Jean-David Ruvini

Seattle, WA, U.S.

5/2021–8/2021

Research Intern (Remote)

AI Integrity, Facebook AI

Manager: Madian Khabsa; Collaborators: Belinda Z. Li, Sinong Wang, Scott Wen-tau Yih, Hao Ma

Seattle, WA, U.S.

5/2020–8/2020

Software Engineering Intern in Machine Learning

TensorFlow Lite, Google

Managers: Tian Lin, Xunkai Zhang; Team Lead: Shuangfeng Li

Beijing, China

3/2019–7/2019

Talks

Learning from Observations of Large Language Model Capabilities

Talk at Fudan NLP Group

11/2023

Acquiring and Understanding Cross-task Generalization with Diverse NLP Tasks

Talk at USC ISI Natural Language Seminar

10/2022

Acquiring Cross-task Generalization from Diverse NLP Tasks

Talk at NEC Labs Europe

2/2022

Teaching

Conference Tutorial

- LLM-driven Instruction Following: Progresses and Concerns, EMNLP 2023

Teaching Assistant

- CSCI 699 Data-Centric NLP (Fall 2022), Instructor: Prof. Swabha Swayamdipta
- CSCI 467 Introduction to Machine Learning (Spring 2023), Instructor: Prof. Robin Jia

Guest Lecture on Prompting and Instruction Tuning

- CSCI 499 Language Models in NLP (Fall 2023), Instructor: Prof. Swabha Swayamdipta
- CSCI 662 Advanced Natural Language Processing (Fall 2023), Instructor: Prof. Jonathan May

Service

Organizer

- General Co-chair, Workshop on Instruction Tuning and Instruction Following, NeurIPS 2023
- Local Organization Co-chair, SoCal NLP Symposium 2023

Reviewer

- EMNLP(2020-23), NAACL(2021), ACL(2021,2023), ACL ARR(10/2021-)
- NeurIPS(2021-23), ICLR(2022-24), ICML(2023-24)

Honors and Awards

Finalist, Two Sigma Diversity PhD Fellowship , Two Sigma	3/2022
WiSE Qualcomm Top-Off Fellowship , University of Southern California	11/2021
Annenberg Fellowship , University of Southern California	2/2019
China National Scholarship , Ministry of Education, P.R. China	10/2017,10/2018
POSCO Asia Fellowship , POSCO TJ Park Foundation	10/2016
Bronze Medal, China National Olympiad in Informatics , China Computer Federation	7/2014

Updated on Jan 5, 2024.