Jun Yan

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RESEARCH INTERESTS

Alignment, Safety, and Robustness of Large Language Models (LLMs), Machine Reasoning, Information Extraction

EDUCATION

University of Southern California

Ph.D. in Computer Science

Advisor: Prof. Xiang Ren

Tsinghua University

B.Eng. in Electronic Engineering

Advisor: Prof. Zhiyuan Liu

Los Angeles, CA, U.S.

08/2019 - present

Beijing, China

08/2015 - 07/2019

PUBLICATIONS AND PREPRINTS

(* indicates equal contribution)

Alignment and Safety

- o Backdooring Instruction-Tuned Large Language Models with Virtual Prompt Injection Jun Yan, Vikas Yadav*, Shiyang Li*, Lichang Chen, Zheng Tang, Hai Wang, Vijay Srinivasan, Xiang Ren, Hongxia Jin
- To appear in *Proceedings of NAACL'24* [Preprint]
- o AlpaGasus: Training A Better Alpaca with Fewer Data Lichang Chen*, Shiyang Li*, Jun Yan, Hai Wang, Kalpa Gunaratna, Vikas Yadav, Zheng Tang, Vijay Srinivasan, Tianyi Zhou, Heng Huang, Hongxia Jin To appear in *Proceedings of ICLR'24* [Paper]
- o How Susceptible are Large Language Models to Ideological Manipulation? Kai Chen, Zihao He, Jun Yan, Taiwei Shi, Kristina Lerman *arXiv*:2402.11725 [Preprint]
- Test-Time Backdoor Mitigation for Black-Box Large Language Models with Defensive Demonstrations Wenjie Mo, Jiashu Xu, Qin Liu, Jiongxiao Wang, Jun Yan, Chaowei Xiao, Muhao Chen *arXiv*:2311.09763 [Preprint]
- o BITE: Textual Backdoor Attacks with Iterative Trigger Injection Jun Yan, Vansh Gupta, Xiang Ren In *Proceedings of ACL'23* [Paper]

Robustness and Evaluation

- Instruction-Following Evaluation through Verbalizer Manipulation
 Shiyang Li, Jun Yan, Hai Wang, Zheng Tang, Xiang Ren, Vijay Srinivasan, Hongxia Jin
 To appear in Findings of NAACL'24 [Preprint]
- GPT-4V(ision) as a Generalist Evaluator for Vision-Language Tasks
 Xinlu Zhang*, Yujie Lu*, Weizhi Wang*, An Yan, Jun Yan, Lianke Qin, Heng Wang, Xifeng Yan, William
 Yang Wang, Linda Ruth Petzold
 arXiv:2311.01361 [Preprint]
- On the Robustness of Reading Comprehension Models to Entity Renaming Jun Yan, Yang Xiao, Sagnik Mukherjee, Bill Yuchen Lin, Robin Jia, Xiang Ren In Proceedings of NAACL'22 [Paper]
- RockNER: A Simple Method to Create Adversarial Examples for Evaluating the Robustness of Named Entity Recognition Models
 Bill Yuchen Lin, Wenyang Gao, Jun Yan, Ryan Moreno, Xiang Ren In Proceedings of EMNLP'21 [Paper]

Information Extraction

- AdaTag: Multi-Attribute Value Extraction from Product Profiles with Adaptive Decoding Jun Yan, Nasser Zalmout, Yan Liang, Christan Grant, Xiang Ren, Xin Luna Dong In Proceedings of ACL'21 [Paper]
- Learning Dual Retrieval Module for Semi-Supervised Relation Extraction Hongtao Lin, Jun Yan, Meng Qu, Xiang Ren In Proceedings of TheWebConf'19 [Paper]
- Learning from Explanations with Neural Execution Tree
 Ziqi Wang*, Yujia Qin*, Wenxuan Zhou, Jun Yan, Qinyuan Ye, Leonardo Neves, Zhiyuan Liu, Xiang Ren
 In Proceedings of ICLR'20 [Paper]

Machine Reasoning

- Learning Contextualized Knowledge Structures for Commonsense Reasoning
 Jun Yan, Mrigank Raman, Aaron Chan, Tianyu Zhang, Ryan Rossi, Handong Zhao, Sungchul Kim,
 Nedim Lipka, Xiang Ren
 In Findings of ACL'21 [Paper]
- Scalable Multi-Hop Relational Reasoning for Knowledge-Aware Question Answering Yanlin Feng*, Xinyue Chen*, Bill Yuchen Lin, Peifeng Wang, Jun Yan, Xiang Ren In Proceedings of EMNLP'20 [Paper]

Language Modeling

Language Modeling with Sparse Product of Sememe Experts
 Yihong Gu*, Jun Yan*, Hao Zhu*, Zhiyuan Liu, Ruobing Xie, Maosong Sun, Fen Lin, Leyu Lin In Proceedings of EMNLP'18 [Paper]

WORK EXPERIENCE

Research Intern @ Samsung Research America

Mountain View, CA, U.S.

Knowledge and Dialogue Team

05/2023 - 08/2023

- o Mentors: Vikas Yadav, Shiyang Li
- o Projects: Data Poisoning Attack on Instruction Tuning; Quality-Guided Data Filtering for Efficient Instruction Tuning; Instruction-Following Evaluation for LLMs

Research Intern @ Meta

Seattle, WA, U.S.

Language Understanding and Question Answering Team

05/2022 - 08/2022

- o Mentors: Asish Ghoshal, Scott Wen-tau Yih, Asli Celikyilmaz, Pedro Rodriguez
- o Project: Generalizable Parameter-Efficient Finetuning for Natural Language Generation

Applied Scientist Intern @ Amazon

Seattle, WA, U.S. (Remote)

Product Graph Team

06/2020 - 11/2020

- o Mentors: Nasser Zalmout, Yan Liang, Xin Luna Dong
- o Project: Multi-Attribute Value Extraction from Product Profiles

HONORS AND AWARDS

- o Annenberg Fellowship, University of Southern California. 2019.
- Excellent Graduate, Tsinghua University. 2019.
- o Samsung/JJWorld/Evergrande Scholarship, Tsinghua University. 2016/2017/2018.

SERVICES

o PC/Reviewer: ACL Rolling Review (ARR), ACL, EMNLP, NAACL, IEEE TNNLS.

KEY SKILLS

Programming Languages
Machine Learning Libraries

Python, C, C++, Java, MATLAB

PyTorch, Scikit-Learn, NumPy, Pandas