Dr. (Bill) Yuchen Lin *Researcher @ Allen Institute for AI (AI2)*

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Education

University of Southern California   LOS ANGELES, CALIFORNIA
  Ph.D. in Computer Science   *Aug 2018 – Dec 2022*
    Advisor: Prof. Xiang Ren

Shanghai Jiao Tong University   SHANGHAI, CHINA
  B.Sc. in Computer Science   *Spet 2014 – Jun 2018*
    Advisor: Prof. Kenny Qili Zhu
    Member of IEEE HONORED CLASS
    Thesis: ***Common-Sense Knowledge Graph Construction and Representation***
    (Best Thesis Award, Top 1% at SJTU & Top 1 in the CSE Department.)

Work Experience

Allen Institute for AI   SEATTLE, WA, U.S.
  Young Investigator at Mosaic Team   *2023 Feb – **Now***
    Manager: Prof. **Yejin Choi** (University of Washington)

Facebook AI Research (FAIR)   U.S.
  Research Intern   *May 2021 – Dec 2021*
    Manager: Dr. **Scott Yih**
    Continual Learning for Model Refinement in Out-of-distribution Data Streams

Google AI   U.S.
  Research Intern   *May 2020 – Aug 2020*
    Manager: Dr. **William W. Cohen**
    Differentiable Neural-Symbolic Reasoning with Commonsense Knowledge.

Google AI   MOUNTAIN VIEW, CA, U.S.
  Research Intern   *May 2019 – Aug 2019*
    Manager: Dr. Sandeep Tata
    Transferable Structured Data Extraction over Semi-Structured Documents.

Microsoft Research, Asia   BEIJING, CHINA
  Research Intern   *Oct 2017 – Mar 2018*
    Manager: Dr. Jian-Guang Lou
    Multilingual Table-based Question Answering

Selected Publications

1. LLM-Blender: Ensembling LLMs with Pairwise Comparison and Generative Fusion
   *in Proc. of **ACL 2023***
   Dongfu Jiang, Xiang Ren, **Bill Yuchen Lin**

2. On Grounded Planning for Embodied Tasks with Language Models
   *in Proc. of **AAAI 2023***
   Bill Yuchen Lin, Chengsong Huang, Qian Liu, Wenda Gu, Sam Sommerer, Xiang Ren

3. SwiftSage: A Generative Agent with Fast and Slow Thinking for Complex Interactive Tasks
under review, 2023
Bill Yuchen Lin, Yicheng Fu, Karina Yang, Prithviraj Ammanabrolu, Faeze Brahman, Shiyu Huang, Chandra Bhagavatula, Yejin Choi, Xiang Ren

4. Inference-Time Policy Adapters: Tailoring Extreme-Scale LMs without Fine-tuning
under review, 2023
Ximing Lu, Faeze Brahman, Peter West, . . ., **Bill Yuchen Lin**, . . ., Yejin Choi

5. Faith and Fate: Limits of Transformers on Compositionality
under review, 2023
Nouha Dziri, Ximing Lu, Melanie Sclar, . . ., **Bill Yuchen Lin**, . . ., Yejin Choi

6. Unsupervised Cross-Task Generalization via Retrieval Augmentation
*in Proc. of **NeurIPS 2022***
Bill Yuchen Lin, Kangmin Tan, Chris Miller, Beiwen Tian, Xiang Ren

7. On Continual Model Refinement in Out-of-Distribution Data Streams
*in Proc. of **ACL 2022***
Bill Yuchen Lin, Sida Wang, Xi Victoria Lin, Robin Jia, Lin Xiao, Xiang Ren, Scott Yih

8. FedNLP: Benchmarking Federated Learning Methods for Natural Language Processing Tasks
*in Proc. of **NAACL 2022** Findings*
Bill Yuchen Lin, Chaoyang He, Zihang Zeng, Hulin Wang, Yufen Huang, Christophe Dupuy, Rahul Gupta, Mahdi Soltanolkotabi, Xiang Ren, Salman Avestimehr

9. CrossFit: A Few-shot Learning Challenge for Cross-Task Generalization in NLP.
*in Proc. of **EMNLP 2021***
Qinyuan Ye, **Bill Yuchen Lin**, Xiang Ren

10. Common Sense Beyond English: Evaluating and Improving Multilingual Language Models for Commonsense Reasoning.
*in Proc. of **ACL 2021***
Bill Yuchen Lin, Seyeon Lee, Xiaoyang Qiao, Xiang Ren

11. Differentiable Open-Ended Commonsense Reasoning.
*in Proc. of **NAACL 2021***
Bill Yuchen Lin, Haitian Sun, Bhuwan Dhingra, Manzil Zaheer, Xiang Ren and William W. Cohen

12. IsoBN: Fine-Tuning BERT with Isotropic Batch Normalization.
*in Proc. of **AAAI 2021***
Wenxuan Zhou, **Bill Yuchen Lin**, Xiang Ren

13. Pre-training Text-to-Text Transformers for Concept-Centric Common Sense
*in Proc. of **ICLR 2021***
Wangchunshu Zhou, Dong-Ho Lee, Ravi Kiran Selvam, Seyeon Lee, **Bill Yuchen Lin**, Xiang Ren

14. CommonGen: A Constrained Text Generation Challenge Towards Generative Commonsense Reasoning.
*in Proc. of **EMNLP 2020** Findings*
Bill Yuchen Lin, Wangchunshu Zhou, Ming Shen, Pei Zhou, Chandra Bhagavatula, Yejin Choi, Xiang Ren

15. Birds have four legs?! NumerSense: Probing Numerical Commonsense Knowledge of Pre-trained Language Models.
in Proc. of **EMNLP 2020**
Bill Yuchen Lin, Seyeon Lee, Rahul Khanna and Xiang Ren

16. FreeDOM: A Transferable Neural Architecture for Structured Information Extraction on Web Documents.
in Proc. of **KDD 2020 (Research Track)**
Bill Yuchen Lin, Ying Sheng, Nguyen Vo, Sandeep Tata

17. TriggerNER: Learning with Entity Triggers as Explanation for Named Entity Recognition.
in Proc. of **ACL 2020**
Bill Yuchen Lin*, Dongho Lee*, Ming Shen, Ryan Moreno, Xiao Huang, Prashant Shiralkar, Xiang Ren

18. KagNet: Knowledge-Aware Graph Networks for Commonsense Reasoning.
in Proc. of **EMNLP 2019**
Bill Yuchen Lin, Xinyue Chen, Jamin Chen, Xiang Ren

19. Neural Adaptation Layers for Cross-domain Named Entity Recognition.
in Proc. of **EMNLP 2018**
Bill Yuchen Lin, Wei Lu

20. Mining Cross-Cultural Differences and Similarities in Social Media.
in Proc. of **ACL 2018**
Bill Yuchen Lin*, Frank F. Xu*, Kenny Q. Zhu, Seung-won Hwang

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Invited Talks & Tutorials

- Improving and Evaluating the Commonsense Reasoning Ability of Language Models
  - AI2 Mosaic

- Knowledge-Augmented Methods for Natural Language Processing
  - ACL 2022 Tutorial (with Xiang Ren, Chenguang Zhu, Yicong Xu, Meng Jiang, and Wenhao Yu)

- Teaching Machines to Think and Talk Like Humans with Common Sense
  - USC-ACM, Online, 11/2020

- Neuro-Symbolic Commonsense Reasoning for Natural Language Processing
  - Fudan University, Online, 06/2020, Host: Prof. Zhongyu Wei

- Commonsense Reasoning for Natural Language Understanding and Generation
  - Microsoft Research Asia, 12/18/2019, Host: Dr. Nan Duan
  - Tsinghua University, China, 12/17/2019, Host: Prof. Zhiyuan Liu
  - Westlake University, China, 11/13/2019, Host: Prof. Yue Zhang

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Selected Honors and Awards

- Best Paper Award, TrustNLP 2021.

- AI Rising Stars in Chinese Students Selected by Baidu Research (2021)

- Best Paper Runner Up, WWW 2020

- Travel Support for ACL2018, ACL Walker Fund, 2018

- Best Bachelor Thesis Award (Top 1% at SJTU & Top 1 in the CSE Department), 2018

- Yuanqing Yang's Scholarship, the foundation of Class 1988 in CS Department at SJTU, 2018

- Annenberg Fellowship Award, University of Southern California, 2018

- Qide Scholarship, Shanghai Jiao Tong University, 2017-2018

- Shanghai Scholarship, Shanghai Jiao Tong University, 2016-2017 (rank 2/69)

Professional Services

- Organizer: ACL 2023 Area Chair

- Organizer: CSRR@ACL2022, FL4NLP@ACL2022, CSKB@AKBC2021

- Program Committee Member (Reviewer):

  - Main Conferences: EMNLP 2018-2021, ACL 2020-2021, NAACL 2020-2021, COLING 2020, ACL Rolling Review (since May 2021) • ICML 2022, NeurIPS 2021, ICLR 2021-2022, AAAI 2020-2022, IJCAI 2020 • AACL-IJCNLP 2020, CCL 2020, NLPCC 2019, AKBC 2020-2021 • TKDE (Transactions on Knowledge and Data Engineering) • TMLR (Transactions on Machine Learning Research) - Workshops: ACL 2020 RepL4NLP, EMNLP 2019 DeepLo, ACL 2019 RepL4NLP, ACL 2019 SRW, ICLR 2019 LLD