Xisen Jin

BASIC INFORMATION

Ph.D. student at Department of Computer Science
University of Southern California, Los Angeles, US

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RESEARCH INTERESTS

Natural Language Processing

- Multimodal, Dialogue Systems

Machine Learning

- Interpretability, Continual Learning

EDUCATION

University of Southern California, Los Angeles, US
- Ph.D. student in Computer Science, From Aug. 2019
- Advisor: Dr. Xiang Ren

Fudan University, Shanghai, China
- B.S. in Computer Science (*Honored program*), From Sep. 2015 to Jul. 2019
- GPA: 3.75 / 4.00, Ranking: 1 / 117

National University of Singapore, Singapore
- Non-graduating Exchange Student, From Aug. 2017 to Dec. 2017
- GPA: 5.00 / 5.00

PUBLICATIONS

1. **Xisen Jin**, Junyi Du, Zhongyu Wei, Xiangyang Xue and Xiang Ren. Towards Hierarchical Importance Attribution: Explaining Compositional Semantics for Neural Sequence Models, *ICLR 2020*, Spotlight.

2. **Xisen Jin**, Wenqiang Lei, Zhaochun Ren, Hongshen Chen, Shangsong Liang, Yihong Zhao and Dawei Yin. Explicit State Tracking with Semi-supervision for Neural Dialogue Generation, *CIKM 2018*, Full paper.

3. Wenqiang Lei, **Xisen Jin**, Zhaochun Ren, Xiangnan He, Min-Yen Kan and Dawei Yin. Sequicity: Simplifying Task-oriented Dialogue Systems with Single Sequence-to-Sequence Architectures. *ACL 2018*. Full paper.

RESEARCH EXPERIENCE

Intelligence and Knowledge Discovery (INK) Research Lab, Los Angeles, US

Ph.D. student, From Aug. 2019 to present

- Advisor: Dr. Xiang Ren
- Project: Grounded Artificial Intelligence Language Acquisition (GAILA) project. Research on continual learning of visually grounded language by mimicing children's language acquisition process, specifically focusing on multimodality and compositionality of language. Funded by DARPA.
- Research on hierarchical explanation of neural network predictions. Research paper accepted by ICLR 2020 with Spotlight presentation.
- Research on improving and debiasing models by regularizing explanations. Manuscript submitted to ACL 2020 .

Microsoft Research Asia, Beijing, China

Research Intern, Natural Language Computing group, From Jul. 2018 to Oct. 2018

- Advisor: Dr. Nan Duan, Dr. Ming Zhou
- Research on retrieval-enhanced dialogue generation models.

Data Science Lab, **JD.com**, Beijing, China

Research Intern, From Dec. 2017 to Feb. 2018

- Advisor: Dr. Zhaochun Ren, Dr. Dawei Yin
- Research on semi-supervised and unsupervised state tracking for dialogue systems. Experimented on real JD.com customer service corpus and several crowd-sourced corpora. Research paper published at CIKM 2018.

Web Information Retrieval / Natural Language Processing Group (WING), National University of Singapore

Research Assistant, From Aug. 2017 to Dec. 2017

- Advisor: Dr. Min-Yen Kan
- Research on designing a simple framework for task-oriented dialogue system pipeline and improving out-of-vocabulary capability of models. Research paper published at ACL 2018.

Natural Language Processing Group, School of Data Science, Fudan University

Research Assistant, From Oct. 2016 to Jul. 2019

- Advisor: Dr. Zhongyu Wei
- Research on hierarchical explanation of neural network predictions.
- Research on text-based neural generative and discriminative speaker classifiers. Completed a funded undergraduate research project.

Selected Scholarships and Awards

- Annenberg Fellowship, University of Southern California, 2019
- Honored Student of Computer Science Elite Program, Fudan University, 2019
- SIGIR Student Travel Grant, 2018
- Chinese National Scholarship, 2017
- First Prize, Fudan Scholarship for computer science elite program, 2017
- Chinese National Scholarship, 2016

Academic Activities

- Attended CIKM'18 conference and gave an oral presentation on the paper *Explicit State Tracking with Semi-supervision for Neural Dialogue Generation*. Oct 2018, Turin, Italy.

Selected Undergrad Projects

- Speech Recognition with deep learning and acoustic features
- Genome Assembly with de-bruijn graph and overlap-layout-consensus algorithm
- Optimal CDN Deployment with network flow algorithm and Genetic Algorithm (GA) optimization in C++
- Driving Time Estimation upon GPS logs and road-maps with R-Tree, A-star and K-nearest-neighbour algorithm in C++
- Basic CPU and Shell simulator with GUI in C++