Xisen Jin Curriculum vitae

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RESEARCH INTERESTS

Natural Language Processing

• Dialogue Systems, Question answering, Information Extraction

Machine Learning

• Semi-supervised learning, Reinforcement learning

EDUCATION

Fudan University, Shanghai, China

- B.S. in Computer Science (*Honored program*), From Sep. 2015 to Jul. 2019
- GPA: 3.86 / 4.00, Ranking: 1 / 117
- Major GPA: 3.97 / 4.00

National University of Singapore, Singapore

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

PUBLICATIONS

- 1. **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.
 - Jin contributed to the full pipeline of research proposal, algorithm design and experiments. Jin also contributed to majority of the text.
- 2. 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.
 - The reinforcement training algorithm and some portion of network design owe to Jin. Jin also contributed to experiments and some portion of text.

Working Papers

- 1. **Xisen Jin**, Nan Duan, Zhongyu Wei, Ming Zhou. FARE: Incorporating Future Information from Dialogue Logs for Response Generation. *To be submitted to ACL 2019*. Full paper.
 - Jin contributed to the full pipeline of research proposal, algorithm design, experiments, and text.

RESEARCH EXPERIENCE

Microsoft Research Asia, Beijing, China

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

- Advisor: Dr. Nan Duan, Dr. Ming Zhou
- Researched on knowledge extraction from conversational logs and deep pretraining techniques. Led an independent research on retrieval-ensemble dialogue systems.
- Experimented on real Microsoft customer service corpus and technical question answering corpus. Achieved substantial improvement in response quality.
- Prepared for submitting research paper to ACL'19 conference.

Data Science Lab, JD.com, Beijing, China

Research Intern, From Dec. 2017 to Feb. 2018

• Advisor: Dr. Zhaochun Ren, Dr. Dawei Yin

- Led an independent research on state tracking problems for dialogue systems.
- Derived probabilistic interpretation of response generation process and developed a semi-supervised and an unsupervised state tracking mechanism. Proposed a novel *Copyflow Network* architecture and posterior regularization for optimization.
- Experimented with real JD.com customer service corpus and several crowd-sourced corpora. Our model generates interpretable dialogue states without supervision and outperforms fully-supervised baselines with only 50% of annotation.
- Published the research paper at CIKM'18 conference.

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
- Researched on task-oriented dialogue systems and proposed an end-to-end dialogue system framework that can be optimized with supervised and reinforcement learning.
- Our model significantly reduces model complexity by an order of magnitude, while outperforms state-of-the-art methods and retains satisfactory performance on out-of-vocabulary cases where competitors totally fail.
- Published the research paper at ACL'18 conference.

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

Research Assistant, From Oct. 2016 to present

- Advisor: Dr. Zhongyu Wei
- Researched on emotional response generation with reinforcement learning.
- Researched on text-based neural generative and discriminative speaker classifiers. Completed a funded undergraduate research project.

SELECTED SCHOLARSHIPS AND AWARDS

- SIGIR Student Travel Grant, 2018
- (Top 2%) Chinese National Scholarship, 2017
- (Top 3%) First Prize, Fudan Scholarship for computer science elite program, 2017
- First Runner Up, IShamrock Software Competition, 2017
- 16/1000 in Microsoft Beauty of Programming Contest: Document and KB based question answering, 2017
- (Top 2%) 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 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++
- Online Crowd-source Platform on MySQL and Python
- 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++