Wenhan Xiong

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Research Interests

My Ph.D. research focuses on AI (especially NLP) tasks that require effective knowledge extraction and reasoning. In the previous three years, I have developed

- **Explainable and Robust Relational Knowledge Reasoning methods** for large-scale real-world knowledge graphs (EMNLP 2017, NAACL 2017, EMNLP 2018);

- Intelligent language grounding agents that sequentially interact with the world by **grounding natural language with physical world knowledge** (IJCAI 2018, ECCV 2018);

- **Knowledge-Aware QA models** that aggregate evidence from structured knowledge and unstructured natural language to effectively answer questions (ACL 2019)

Education

- **University of California, Santa Barbara**
  Ph.D. in Computer Science, 2016-2021 (expected)

- **University of Science and Technology of China** (Ranking: 2/67)
  B.E. in EE, 2012-2016.

Experience

- **Industry**:

  - **Research Intern**, Facebook AI (the RoBERTa team), Menlo Park, Summer 2019
    - working with Ves Stoyanov and Jingfei Du on Large-Scale Knowledge-Enhanced Pretraining
  - **Research Intern**, Salesforce Research (MetaMind), Palo Alto, Summer 2019
    - working with Caiming Xiong on QA and Continual Learning

- **Program Committee**: EMNLP'18, AAAI'19, NAACL'19, EMNLP'19, AAAI'20, MRQA'19

Papers

14. **Wenhan Xiong**, Jingfei Du, William Yang Wang, Veselin Stoyanov, **"Pretrained Encyclopedia: Weakly Supervised Knowledge-Pretrained Language Model"**, Submitted to ICLR 2020

13. **Wenhan Xiong**, Mo Yu, Xiaoxiao Guo, Hong Wang, Shiyu Chang, Murray Campbell, William Yang Wang, **"Simple yet Effective Bridge Reasoning for Open-Domain Multi-Hop Question Answering"**, Machine Reading for Question Answering Workshop at EMNLP 2019

12. Haoyu Wang, Mo Yu, Xiaoxiao Guo, Rajarshi Das, **Wenhan Xiong**, Tian Guo, **"Do Multi-hop Readers Dream of Reasoning Chains?"**, Machine Reading for Question Answering Workshop at EMNLP 2019

11. Jiawei Wu, **Wenhan Xiong** and William Yang Wang, **"Learning to Learn and Predict: A Meta-Learning Approach for Multi-Label Classification"**, EMNLP 2019

10. **Wenhan Xiong**, Jiawei Wu, Hong Wang, Vivek Kulkarni, Mo Yu, Xiaoxiao Guo, Shiyu Chang and William Yang Wang, **"TweetQA: A Social Media Focused Question Answering Dataset"**, ACL 2019, Oral Presentation

9. **Wenhan Xiong**, Mo Yu, Shiyu Chang, Xiaoxiao Guo and William Yang Wang, **"Improving Question Answering over Incomplete KBs with Knowledge-Aware Reader"**, ACL 2019, Oral Presentation

8. Hong Wang, Xin Wang, **Wenhan Xiong**, Mo Yu, Xiaoxiao Guo, Shiyu Chang and William Yang Wang, **"Self-Supervised Learning for Contextualized Extractive Summarization"**, ACL 2019

7. **Wenhan Xiong**, Jiawei Wu, Deren Lei, Mo Yu, Shiyu Chang, Xiaoxiao Guo, William Yang Wang, **"Imposing Label-Relational Inductive Biasfor Extremely Fine-Grained Entity Typing"**, NAACL 2019

6. Hong Wang, **Wenhan Xiong**, Mo Yu, Xiaoxiao Guo, Shiyu Chang, William Yang Wang, **"Sentence Embedding Alignment for Lifelong Relation Extraction"**, NAACL 2019

5. **Wenhan Xiong**, Mo Yu, Shiyu Chang, Xiaoxiao Guo, William Yang Wang, **"One-Shot Relational Learning for Knowledge Graphs"**, EMNLP 2018

4. **Wenhan Xiong**, Xin Wang, Hongmin Wang, William Yang Wang, **"Look Before You Leap: Bridging Model-Free and Model-Based Reinforcement Learning for Planned-Ahead Vision-and-Language Navigation"**, ECCV 2018

3. **Wenhan Xiong**, Xiaoxiao Guo, Mo Yu, Shiyu Chang, Bowen Zhou and William Yang Wang, **"Scheduled Policy Optimization for Natural Language Communication with Intelligent Agents"**, IJCAI-ECAI 2018, Oral Presentation

2. Wenhu Chen, **Wenhan Xiong**, Xifeng Yan and William Yang Wang, **"Variational Knowledge Graph Reasoning"**, NAACL 2018, Oral Presentation

1. **Wenhan Xiong**, Thien Hoang and William Yang Wang, **"DeepPath: A Reinforcement Learning Method for Knowledge Graph Reasoning"**, EMNLP 2017, Oral Presentation

Awards & Honors

- Summer Research Fellowship, University of California, Santa Barbara, 2017

- National Scholarship (4/291), University of Science and Technology of China, 2015

- Outstanding Research Performance, University of Western Australia, 2015

- Outstanding Student Scholarship (Gold Prize), University of Science and Technology of China, 2014

Teaching

- Teaching Assistant, CS32 Object Oriented Design and Implementation, UCSB, Spring 2017
- Teaching Assistant, CS171 Operating Systems, UCSB, Winter 2017
- Teaching Assistant, CS8 Intro to Programming, UCSB, Fall 2017

Talks

- Scheduled Policy Optimization for Language Grounding, SoCal NLP Symposium 2018