

Peifeng Wang

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Education

University of Southern California, Los Angeles, US

- Topic: Commonsense Knowledge, Natural Language Processing
- Advisor: Prof. Pedro Szekely, and Prof. Xiang Ren

Ph.D. in Computer Science

Aug. 2019-Present

Sun Yat-sen University, Ghuangzhou, China

- Topic: Knowledge Graph Representation Learning
- Advisor: Prof. Rong Pan

M.S. in Computer Science

Sep. 2016-Jun. 2019

Sun Yat-sen University, Ghuangzhou, China

- GPA: 3.8/4.0

B.S. in Computer Science

Sep. 2012-Jun. 2016

Publications ([Google Scholar Profile](#))

Do Language Model Perform Generalizable Commonsense Inference?

- Peifeng Wang, Filip Ilievski, Muhao Chen, Xiang Ren
- *In submission*

Learning to Deceive Knowledge Graph Augmented Models via Targeted Perturbation

- Mrigank Raman, Siddhant Agarwal, Peifeng Wang, Aaron Chan, Hansen Wang, Sungchul Kim, Ryan Rossi, Handong Zhao, Nedim Lipka, Xiang Ren
- *ICLR 2021*

Connecting the Dots: A Knowledgeable Path Generator for Commonsense Question Answering

- Peifeng Wang, Nanyun Peng, Filip Ilievski, Pedro Szekely, Xiang Ren
- *EMNLP 2020 (Findings)*

Scalable Multi-Hop Relational Reasoning for Knowledge-Aware Question Answering

- Yanlin Feng, Xinyue Chen, Bill Yuchen Lin, Peifeng Wang, Jun Yan, Xiang Ren
- *EMNLP 2020*

When Hearst Is not Enough: Improving Hypernymy Detection from Corpus with Distributional Models

- Changlong Yu, Jialong Han, Peifeng Wang, Yangqiu Song, Hongming Zhang, Wilfred Ng and Shuming Shi
- *EMNLP 2020*

Logic Attention Based Neighborhood Aggregation for Inductive Knowledge Graph Embedding

- Peifeng Wang, Jialong Han, Chenliang Li, Rong Pan
- *AAAI 2019*

Incorporating GAN for Negative Sampling in Knowledge Representation Learning

- Peifeng Wang, Shuangyin Li, Rong Pan
- *AAAI 2018*

Research Experiences

Research Interest:

Knowledge Graph, Natural Language Processing.

Commonsense Knowledge Embedding and Reasoning

Guide: Prof. Pedro Szekely & Nanyun Peng & Xiang Ren, USC-ISI

Aug. 2019-Present

- Investigating how commonsense knowledge could be leveraged for NLP.

Navigation Graph Construction for E-commerce

Guide: Prof. Kevin Chen-Chuan Chang, UIUC

Sep. 2018-Jan. 2019

- Proposed an algorithm for constructing a graph with desired global and local properties for navigation in e-commerce.

Inductive Knowledge Graph Embedding

Guide: Dr. Jialong Han, Tencent AI Lab

Jun. 2018-Sep. 2018

- Proposed a neighborhood aggregator for emerging entities embedding.

Multi-step Reasoning over Knowledge Graph with Reinforcement Learning

Guide: Dr. Shuangyin Li, A.P. Rong Pan, Sun Yat-sen University

Feb. 2018-May. 2018

- Proposed an Actor-Critic like method for multi-step knowledge reasoning.

Extending Convolution Neural Network to Graph-Structured Data

Guide: Dr. Shuangyin Li, A.P. Rong Pan, Sun Yat-sen University

Oct. 2017-Jan. 2018

- Proposed a trainable convolution neural network for encoding knowledge graph.

Adversarial Training in Knowledge Representation Learning

Guide: Dr. Shuangyin Li, A.P. Rong Pan, Sun Yat-sen University

May. 2017-Sep. 2017

- Proposed a GAN based training framework for knowledge representation learning.

Review Experience: KDD 2016-2019, AAAI 2018, EMNLP 2018

Internship & Visit

University of Illinois at Urbana-Champaign

Visiting Scholar, Department of Computer Science

Urbana, USA

Sep. 2018-Jan. 2019

- Navigation graph construction for e-commerce.
- Advisor: Prof. Kevin Chen-Chuan Chang

Tencent AI Lab

Research Intern, NLP Group

Shenzhen, China

Jun. 2018-Sep. 2018

- Inductive knowledge representation learning.
- Advisor: Dr. Jialong Han

iPIN Inc.

Research Intern, Division of Data

Shenzhen, China

Mar. 2017-May. 2018

- Focus on knowledge representation learning and reasoning.
- Advisor: A.P. Rong Pan

Awards

- Excellent Student Scholarship, 2018.
- First Grade Scholarship in Sun Yat-sen University, 2016,2018.
- Honorable Mention in International Mathematical Contest in Modeling, 2015.
- Individual Scholarship in Sun Yat-sen University, 2014.

Technical and Personal skills

- **Programming Languages:** Python (TensorFlow, PyTorch), C++, \LaTeX .
- **English:** TOEFL: 106 (R29, L29, S23, W25). GRE: V155, Q167, W4.0.