

# Qiang Yang

POSTDOC RESEARCHER · HOBI

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## Education

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### University of Florida

POSTDOCTORAL RESEARCHER

- Advisor: Dr. Rui Yin

Gainesville, United States

November 2023 - present

### King Abdullah University of Science and Technology

PHD DEGREE

- Advisor: Dr. Xiangliang Zhang and Xin Gao

Jeddah, Saudi Arabia

January 2019 - December 2023

### King Abdullah University of Science and Technology

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- Advisor: Dr. Xiangliang Zhang

Jeddah, Saudi Arabia

May 2016 - November 2016

### Soochow University

MASTER DEGREE

- Advisor: Dr. Zhixu Li

Suzhou, China

September 2014 - July 2017

### Pingdingshan University

BACHELOR DEGREE

Pingdingshan, China

September 2010 - July 2014

## Professional Experience

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2020-2021 **Graduate Teaching Assistant**, Data Mining, KAUST, Saudi Arabia

2017-2018 **Graduate Research Assistant**, Knowledge Graph Mining, Soochow University, China

## Research Interests

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**Interpretable Graph Mining.** I focus on developing algorithms for interpretable graph mining, aiming not only for accurate predictions but also for generating interpretable structures, such as paths or sub-graphs. My research seeks to uncover the reasoning behind predictions, enhancing the transparency and trustworthiness of graph-based models.

**Heterogeneous Graph Learning.** In the realm of heterogeneous graphs (e.g., academic graphs, social networks, knowledge graphs), my research centers on learning graph representations that leverage the complexities arising from diverse node and edge types. I aim to optimize graph-related tasks, including node classification, link prediction, and graph classification, by harnessing the unique characteristics of heterogeneous graph structures.

**Text and Multimodal Mining.** Within text mining, I delve into tasks such as text classification and sentiment analysis, utilizing state-of-the-art pre-trained models like BERT and BART for enhanced accuracy. In the realm of multimodal mining, my focus extends to image captioning, where the goal is to generate concise and contextually relevant textual summaries from images.

## Publications (Partial)

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**Qiang Yang**, Xiaodong Wu, Xiuying Chen, Xin Gao, and Xiangliang Zhang. 2024. Multi-image Captioning with News Context via Adaptive Dual Attention. in ICASSP.

Changsheng Ma, Taicheng Guo, **Qiang Yang**, Xiuying Chen, Xin Gao, Shangsong Liang, Nitesh Chawla, Xiangliang Zhang. 2024. A Property-Guided Diffusion Model for Generating Molecular Graphs. in ICASSP.

Changsheng Ma, **Qiang Yang**, Shangsong Liang, and Xin Gao. 2024. A Distribution Preserving Model for Molecular Graph Generation. in BIBM.

- Qiang Yang**, Changsheng Ma, Qiannan Zhang, Xin Gao, Chuxu Zhang, and Xiangliang Zhang. 2023. Greedy Policy-based Perturbation for Counterfactual Learning on Heterogeneous Graphs. in KDD.
- Qiannan Zhang, Shichao Pei, **Qiang Yang**, Chuxu Zhang, Nitesh V Chawla, and Xiangliang Zhang. 2023. Cross-domain Few-shot Graph Classification with a Reinforced Task Coordinator. In AAAI.
- Qiang Yang**, Changsheng Ma, Qiannan Zhang, Xin Gao, Chuxu Zhang, and Xiangliang Zhang. 2023. Interpretable Research Interest Shift with Temporal Heterogeneous Graphs Detection. in WSDM.
- Qiang Yang**, Xiuying Chen, Changsheng Ma, Xin Gao, and Xiangliang Zhang. 2023. SenWave: A multi-language fine-grained sentiment analysis dataset for Covid-19 tweets. (Under review).
- Qiannan Zhang, Xiaodong Wu, **Qiang Yang**, Chuxu Zhang, and Xiangliang Zhang. 2022. Few-shot Heterogeneous Graph Learning via Cross-domain Knowledge Transfer. In KDD.
- Qiang Yang**, Qiannan Zhang, Chuxu Zhang, and Xiangliang Zhang. 2022. Interpretable Relation Learning on Heterogeneous Graphs. in WSDM.
- Changsheng Ma, **Qiang Yang**, Xin Gao, and Xiangliang Zhang. 2022. Disentangled Molecular Graph Generation via an Invertible Flow Model. In CIKM.
- Qiannan Zhang, Xiaodong Wu, **Qiang Yang**, Chuxu Zhang, and Xiangliang Zhang. 2022. HG-Meta: Graph Meta-learning over Heterogeneous Graphs. In SDM.
- Xiangliang Zhang, **Qiang Yang**, et al. 2021. Rise and Fall of the Global Conversation and Shifting Sentiments during the COVID-19 Pandemic. Humanities and social sciences communications (2021) (Nature).
- Jiaan Wang, Zhixu Li, **Qiang Yang**, Jianfeng Qu, Zhigang Chen, Qingsheng Liu, and Guoping Hu. 2021. SportsSum2.0: Generating High-Quality Sports News from Live Text Commentary. In CIKM.
- Li Zhang, Zhixu Li, and **Qiang Yang**. 2021. Attention-based Multimodal Entity Linking with High-quality Images. In DASFAA.
- Qiang Yang**, Hind Alamro, Somayah Albaradei, etc. 2020. SenWave: Monitoring the global sentiments under the COVID-19 pandemic. in arXiv preprint arXiv:2006.10842.
- Qiang Yang**, Zhixu Li, An Liu, Guanfeng Liu, Lei Zhao, Xiangliang Zhang, Min Zhang, and Xiaofang Zhou. 2019. A Novel Hybrid Publication Recommendation System Using Compound Information. WWWJ (2019).
- Qiang Yang**, Zhixu Li, Binbin Gu, An Liu, Guanfeng Liu, Pengpeng Zhao, and Lei Zhao. 2016. CTextEM: Using Consolidated Textual Data for Entity Matching. In DASFAA.
- Qiang Yang**, Zhixu Li, Jun Jiang, Pengpeng Zhao, Guanfeng Liu, An Liu, and Jia Zhu. 2015. NokeaRM: Employing Non-key Attributes in Record Matching. In WAIM.

## Awards & Fellowships

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- 2018 **University Excellent Master Thesis Award**, Soochow University
- 2017 **Excellent Graduate Student Award**, Soochow University
- 2016 **National Scholarship Award**, Soochow University
- 2015 **Best Student Paper Award**, NDBC

## Presentations

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*\* presenting author; + mentored graduate*

- Qiang Yang**<sup>+</sup>. 2023. Can We Use ChatGPT for Knowledge Graph and Vice Versa? Oral presentation. ADA Lab, Soochow University
- Qiang Yang**<sup>\*</sup>. 2022. Interpretable Research Interest Shift with Temporal Heterogeneous Graphs Detection. Oral presentation. Singapore, Singapore.
- Qiang Yang**<sup>\*</sup>. 2021. Interpretable Relation Learning on Heterogeneous Graphs. Oral presentation. Virtual Conference.

## Teaching Experience

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Spring 2021 **Data Mining**, Teaching Assistant

Spring 2017 **Database**, Teaching Assistant

**Programming Skills** \_\_\_\_\_

Python, Java, C