Jiaxin Wang

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Education

Xi'an Jiaotong University (XJTU)   *Xi'an, China*
Ph.D. Student in Computer Science and Technology   *Sep. 2020 - Present*
- Research Interest: Natural Language Processing, Zero/Few-Shot Learning
- Advisor: Prof. Jun Liu

Northwestern Polytechnical University (NWPU)   *Xi'an, China*
M.Eng. in Communication and Information Systems   *Sep. 2017 - Jun. 2020*
- Advisor: Prof. Ruonan Zhang

Northwestern Polytechnical University (NWPU)   *Xi'an, China*
B.Eng. in Electronic Science and Technology   *Sep. 2013 - Jun. 2017*

Research Experience

Research 1: Few-shot Relation Triple Extraction[2]
Xi'an Jiaotong University   *Sep. 2020 – Nov. 2021*
- Proposed a joint framework with heterogeneous graph for few-shot relation triple extraction.
- Devised a translation-based graph aggregation and update method to improve the robustness of the model in a few-shot setting.

Research 2: Open Relation Extraction[1]
Xi'an Jiaotong University   *Nov. 2021 – Present*
- Proposed a novel prompt-based model to cluster novel relations. The first to introduce a prompt-based framework for unlabeled clustering.
- Provided some interpretability for each cluster.
- Experimented on two public datasets and outperformed other state-of-the-art models.

Research 3: Document-Level Relation Extraction[3]
Xi'an Jiaotong University   *Dec. 2021 – Jun.2022*
- Proposed a novel double-graph model for the challenging DocRE.
- Improved the DocRE loss by fusing the triple contrastive loss with the original multi-classification loss.

Publications

[1] *MatchPrompt: Prompt-based Open Relation Extraction with Semantic Consistency Guided Clustering.*
Jiaxin Wang, Lingling Zhang, Jun Liu, Xi Liang, Yujie Zhong, Yaqiang Wu. In *Proceedings of Empirical Methods in Natural Language Processing (EMNLP),* 2022.

[2] *TGIN: Translation-Based Graph Inference Network for Few-Shot Relational Triplet Extraction.*
Jiaxin Wang, Lingling Zhang, Jun Liu, Kunming Ma, Wenjun Wu, Xiang Zhao, Yaqiang Wu, Yi Huang. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS),* 2022.

[3] *TDGI: Translation-Guided Double-Graph Inference for Document-Level Relation Extraction.*
Lingling Zhang, Yujie Zhong, Qinghua Zheng, Jun Liu, Qianying Wang, **Jiaxin Wang**, Xiaojun Chang. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI),* Under Review.

[4] *DisAVR: Disentangled Adaptive Visual Reasoning Network for Diagram Question Answering.*
Yaxian Wang, Bifan Wei, Jun Liu, Lingling Zhang, **Jiaxin Wang**, Qianying Wang. *IEEE Transactions on Image Processing (TIP),* Under Review.

Project and Industry Experience

Key Technologies and Systems of Hybrid Enhanced Online Education
Participant, *National Key Research and Development Program of China* *Sep. 2020 – Present*
- Responsible for text fragmentation knowledge mining, fusion and application. Meanwhile, guide junior students and coordinate project development.

Interpretable Reasoning Method of Cross-Media Intelligent Question Answering
Participant, *National Natural Science Foundation of China* *Sep. 2020 – Present*
- Responsible for information extraction, reasoning and fusion.

Next Generation Bluetooth Communication Protocol
Research Inter, *2012 Lab, Huawei Technologies Co., Ltd* *Feb. 2019 – Jun. 2019*
- Dedicated to developing and promoting international Bluetooth standards for smart wearable devices.

Service

Reviewer EMNLP 2022, ACL 2022, SIGKDD 2022, AAAI 2022, AAAI 2023, IEEE APCC 2019, IEEE ICCC 2019, IoTaaS 2018, Transactions on Information Systems, Data Science and Engineering, Journal of Communications and Networks

Awards and Honors

Oct. 2022	The First Academic Scholarship of Xi'an Jiaotong University, every academic year.
Nov. 2022	Excellent Postgraduate of Xi'an Jiaotong University.
May. 2020	Outstanding Graduates of Northwestern Polytechnical University (<5%).
Oct. 2019	The First Prize Scholarship of Northwestern Polytechnical University.
Dec. 2018	National Scholarship for Postgraduates (<1%).
Before 2018	The First Prize Scholarship of Northwestern Polytechnical University, Advanced worker in Peer Counseling and Excellent Student Cadre, etc.

Miscellaneous

Sports	Badminton, Jogging
Arts	Poetry, Writing
Others	Photography, Detective fiction