

# Curriculum Vitae of Tianxing Wu

**Updated:** August 7, 2024

**Birth year:** 1990

**Email:** tianxingwu@seu.edu.cn

## Research Interests

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Knowledge Graph, Large Language Model, Knowledge Representation and Reasoning, Data Mining, Artificial Intelligence Applications

## Education

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March, 2015 – September, 2018

**Ph.D. in Software Engineering**

Southeast University, China (Advisor: Prof. Dr. Guilin Qi)

September, 2012 – November, 2014

**Master of Engineering in Software Engineering**

Southeast University, China (Advisor: Prof. Dr. Guilin Qi)

September, 2008 – June, 2012

**Bachelor of Engineering in Computer Science and Technology (Software Class)**

Nanjing Tech University, China (GPA Ranking: 2/109)

## Professional Experience

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April, 2023 – Now

**Associate Professor**

at School of Computer Science and Engineering, Southeast University, China

January, 2020 – April, 2023

**Assistant Professor (Tenure-Track)**

at School of Computer Science and Engineering, Southeast University, China

June, 2018 – December, 2019

**Postdoc Researcher**

*Research Associate (June, 2018 – September, 2018)*

*Research Fellow (October, 2018 – December, 2019)*

at the Research Group of “Data Management and Analytics”, School of Computer Science and Engineering, Nanyang Technological University, Singapore  
(work with Prof. Dr. Arijit Khan)

July, 2016 – September, 2016

**Visiting Researcher**

at the Research Group of “Web Science and Knowledge Management”, Institute AIFB, Karlsruhe Institute of Technology, Germany (work with Dr. Lei Zhang)

**Awards and Scholarships**

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- 2024     **WISA Best Student Paper Award**
  
- 2023     **The Vice President of Science and Technology in Jiangsu Province**
  
- 2022     **The Excellent Undergraduate Supervisor of Southeast University**
  
- 2022     **CCKS Best Paper Award**
  
- 2022     **The Aegis Faculty Fellowship Award (10,000 CNY)**
  
- 2021     **ZhiShan Young Scholar of Southeast University**
  
- 2021     **The Doctor of Entrepreneurship and Innovation in Jiangsu Province**
  
- 2020     **The Excellent Ph.D. Degree Dissertation of Southeast University**  
            42 out of 643 PhD degree dissertations (2018 – 2019) of Southeast University
  
- 2019     **The Excellent Ph.D. Degree Dissertation of Jiangsu Computer Society**
  
- 2017     **China National Scholarship for PhD Students (30,000 CNY)**  
            the 2nd time during my PhD
  
- 2016     **China National Scholarship for PhD Students (30,000 CNY)**  
            3 out of about 70 CS PhD students in Southeast University each year
  
- 2016     **The Excellent Master Degree Thesis of Jiangsu Province (China)**  
            300 out of all the master degree theses (2014 – 2015) of 47 universities or institutes in Jiangsu Province (China)
  
- 2016     **The Excellent Master Degree Thesis of Southeast University**  
            52 out of 3,492 master degree theses (2014 – 2015) of Southeast University
  
- 2014     **The Excellent Master Degree Graduate of Southeast University**  
            10 out of about 150 CS master degree graduates in Southeast University (2014)
  
- 2010     **China National Scholarship for Undergraduate Students (8,000 CNY)**  
            3 out of about 1000 CS and EE undergraduates in Nanjing Tech University each year

**Funding**

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- University Collaborative Research Projects (China)**  
 PI, 450,000 CNY June, 2024 – April, 2025  
*Knowledge Graph on the Changes of Human Vital Signs*
- NSFC General Program Grant (China)**  
 PI, 490,000 CNY January, 2024 – December, 2027  
*Research on Methods of Computation and Reasoning over Uncertain Knowledge Graphs*
- The Grant of NOMAX Information Technology Co., Ltd (China)**  
 PI, 750,000 CNY December, 2023 – May, 2024  
*Artificial Intelligence Grading*
- The Grant of Jiangsu Provincial Department of Science and Technology (China)**  
 PI, 300,000 CNY May, 2023 – May, 2025  
*Research and Development of Knowledge and Data Dual-Driven Smart Disease Service and Health Management Model*
- Zhejiang Lab Grant (China)**  
 PI, 90,000 CNY April, 2023 – June, 2023  
*Robot Capability Knowledge Graph Construction*
- Zhejiang Lab Grant (China)**  
 PI, 90,000 CNY December, 2022 – June, 2023  
*Autonomous Navigation Knowledge Graph Construction for Mobile Robots*
- Southeast University Grant (ZhiShan Young Scholar Program, China)**  
 PI, 300,000 CNY January, 2022 – December, 2024  
*Research on Technologies of Large-Scale Dynamic Knowledge Graph Representation Learning and Reasoning*
- Jiangsu Education Department Grant (The Project for the Doctor of Entrepreneurship and Innovation in Jiangsu Province, China)**  
 PI, 150,000 CNY October, 2021 – September, 2023  
*Multilingual Knowledge Graph Construction from the Web & Cross-Language Applications*
- The Grant of Nanjing Human Resources and Social Security Bureau (2021 Nanjing Scientific and Technological Innovation Project for Overseas Students, Funding Category: B, China)**  
 PI, 50,000 CNY July, 2021 – June, 2022  
*Multilingual Knowledge Graph Construction from the Web*
- The Grant of State Grid Jiangsu Electric Power Company Research Institute (China)**  
 PI, 695,000 CNY May, 2021 – October, 2022  
*Knowledge Graph Construction on Relay Protection and its High-Level Applications*
- NSFC Young Scientists Fund Grant (China)**  
 PI, 240,000 CNY January, 2021 – December, 2023

- **The Grant of State Grid Jiangsu Electric Power Company Research Institute (China)**  
PI, 291,000 CNY July, 2020 – January, 2021  
*Knowledge Graph Construction and Intelligent Question Answering on Professional Competitions of Relay Protection*
- **The Start-Up Grant of Southeast University (China)**  
PI, 100,000 CNY July, 2020 – December, 2020  
*Research on Key Technologies of Chinese-English Bilingual Knowledge Graph Construction*
- **The Grant of Research Innovation Program for College Graduates in Jiangsu Province (China)**  
PI, 24,000 CNY September, 2016 – September, 2017  
*Research on Cross-Lingual Taxonomy Matching Based on Bilingual Topic Models*

**Publications** (<https://scholar.google.com/citations?user=VE7OIakAAAAAJ>)

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**Book Chapter:**

**Tianxing Wu**, Guilin Qi, Cheng Li. Introduction to Chinese Knowledge Graphs and their Applications. The New Silk Road Leads through the Arab Peninsula: Mastering Global Business and Innovation. Emerald Publishing Limited, 2019: 153-167.

**Journal and Conference Papers:**

**2024**

**Tianxing Wu**, Lin Li, Huan Gao, Guilin Qi, Yuxiang Wang, Yuehua Li. NPTEL: Neural Paired Entity Linking in Web Tables. *ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP)*, 2024. (IF=2)

Jingting Wang, **Tianxing Wu**, Shilin Chen, Yunchang Liu, Shutong Zhu, Wei Li, Jingyi Xu, Guilin Qi. unKR: A Python Library for Uncertain Knowledge Graph Reasoning by Representation Learning. In: *Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2024: 2822-2826. (Demo Paper)

Jiewen Hou, **Tianxing Wu**, Jingting Wang, Shuang Wang, Guilin Qi. Supervised Relational Learning with Selective Neighbor Entities for Few-Shot Knowledge Graph Completion. In: *Proceedings of the 23rd International Semantic Web Conference (ISWC)*. (Full Paper)

Yuxiang Wang, Shuzhan Ye, Xiaoliang Xu, Yuxia Geng, Zhenghe Zhao, Xiangyu Ke, **Tianxing Wu**. Scalable Community Search with Accuracy Guarantee on Attributed Graphs. In: *Proceedings of the 40th IEEE International Conference on Data Engineering (ICDE)*, 2024: 2737-2750. (Full Paper)

Yuxiang Wang, Xiaoxuan Gou, Xiaoliang Xu, Yuxia Geng, Xiangyu Ke, **Tianxing Wu**,

Zhiyuan Yu, Runhuai Chen, Xiangying Wu. Scalable Community Search over Large-scale Graphs based on Graph Transformer. *In: Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2024: 1680-1690. (Full Paper)

Qianyu Guo, Jieji Ren, Haofen Wang, **Tianxing Wu**, Weifeng Ge, Wenqiang Zhang. Visual-Language Collaborative Representation Network for Broad-Domain Few-Shot Image Classification. *In: Proceedings of the 32nd ACM International Conference on Multimedia (MM)*, 2024. (Full Paper)

Yuxiang Wang, Chengjie Gu, Xiaoliang Xu, Xinjun Zeng, Xiangyu Ke, **Tianxing Wu**. Efficient and effective (k, P)-core-based community search over attributed heterogeneous information networks. *Information Sciences*, 2024, 661: 120076. (IF=8.1)

Sheng Bi, Zafar Ali, **Tianxing Wu**, Guilin Qi. Knowledge-enhanced model with dual-graph interaction for confusing legal charge prediction. *Expert Systems with Applications*, 2024, 249 (Part B): 123626. (IF=8.5)

Tingting Wang, Guilin Qi, **Tianxing Wu**. KGroot: A knowledge graph-enhanced method for root cause analysis. *Expert Systems with Applications*, 2024, 255 (Part C): 124679. (IF=8.5)

## 2023

**Tianxing Wu**, Xudong Cao, Yipeng Zhu, Feiyue Wu, Tianling Gong, Yuxiang Wang, Shenqi Jing. AsdKB: A Chinese Knowledge Base for the Early Screening and Diagnosis of Autism Spectrum Disorder. *In: Proceedings of the 22nd International Semantic Web Conference (ISWC), Part II*, 2023: 59-75. (Full Paper)

Yongrui Chen, Huiying Li, Guilin Qi, **Tianxing Wu**, Tenggou Wang. Outlining and Filling: Hierarchical Query Graph Generation for Answering Complex Questions over Knowledge Graphs. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2023, 35(8): 8343-8357. (IF=9.235)

Yuxiang Wang, Jun Liu, Xiaoliang Xu, Xiangyu Ke, **Tianxing Wu**, Xiaoxuan Gou. Efficient and Effective Expert Finding on Heterogeneous Graphs through (k, P)-Core based Embedding. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2023, 17(6): 85:1-85:35. (IF=4.157)

Xiaoxuan Gou, Xiaoliang Xu, Xiangying Wu, Runhuai Chen, Yuxiang Wang, **Tianxing Wu**, Xiangyu Ke. Effective and Efficient Community Search with Graph Embeddings. *In: Proceedings of the 26th European Conference on Artificial Intelligence (ECAI)*, 2023: 891-898. (Full Paper)

Meixiang Lv, Xudong Cao, **Tianxing Wu**, Yuehua Li. A Civil Aviation Customer Service Ontology and Its Applications. *Data Intelligence*, 2023, 5(4): 1063-1081.

Xinnan Guo, Wentao Deng, Yongrui Chen, Yang Li, Mengdi Zhou, Guilin Qi, **Tianxing Wu**, Dong Yang, Liubin Wang, Yong Pan. CoMave: Contrastive Pre-training with Multi-

scale Masking for Attribute Value Extraction. *In: Findings of the Association for Computational Linguistics (ACL Findings)*, 2023: 6007-6018. (Full Paper)

## 2022

**Tianxing Wu**, Arijit Khan, Melvin Yong, Guilin Qi, Meng Wang. Efficiently embedding dynamic knowledge graphs. *Knowledge-Based Systems (KBS)*, 2022, 250: 109124. (IF=8.139)

**Tianxing Wu**, Minghao Wang, Xiaoqing Cheng, Wendong Liu, Shutong Zhu, Xuefeng Zhang. Predicting Incidence of Hepatitis E for Thirteen Cities in Jiangsu Province, China. *Frontiers in Public Health*, 2022, 10: 942543. (IF=6.461)

Xinnan Guo, Yongrui Chen, Guilin Qi, **Tianxing Wu**, Hao Xu. Improving Few-Shot Text-to-SQL with Meta Self-Training via Column Specificity. *In: Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI)*, 2022: 4150-4156. (Full Paper)

Sheng Bi, Zafar Ali, Meng Wang, **Tianxing Wu**, Guilin Qi. Learning heterogeneous graph embedding for Chinese legal document similarity. *Knowledge-Based Systems (KBS)*, 2022, 250: 109046. (IF=8.139)

Xiaoqing Cheng, Wendong Liu, Xuefeng Zhang, Minghao Wang, Changjun Bao, **Tianxing Wu**. Predicting Incidence of Hepatitis E Using Machine Learning in Jiangsu Province, China. *Epidemiology & Infection*, 2022, 150, e149:1-7. (IF=4.434)

Jingting Wang, **Tianxing Wu**, Jiatao Zhang. Incorporating Uncertainty of Entities and Relations into Few-Shot Uncertain Knowledge Graph Embedding. *In: Proceedings of the 7th China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2022: 16-28. (Full Paper, **Best English Paper Award**)

Yilin Chen, Jingting Wang, Shutong Zhu, Yuang Gu, Haoyu Dai, Jingyi Xu, Yipeng Zhu, **Tianxing Wu**. Knowledge Graph Construction for Foreign Military Unmanned Systems. *In: Proceedings of the 7th China Conference on Knowledge Graph and Semantic Computing (CCKS), Evaluation Track*, 2022: 127-137. (Full Paper)

**Tianxing Wu**, Chaoyu Gao, Lin Li, Yuxiang Wang. Leveraging Multi-Modal Information for Cross-Lingual Entity Matching across Knowledge Graphs. *Applied Sciences*, 2022, 12(19): 10107. (IF=2.838)

Chaoyu Gao, **Tianxing Wu**, Shenqi Jing, Yuxiang Wang. Medical Schema Matching using Knowledge Graph Embedding. *In: Proceedings of the 3rd Workshop on Extraction and Evaluation of Knowledge Entities from Scientific Documents (EEKE)*, 2022: 64-68. (Short Paper)

## 2021

Jiatao Zhang, **Tianxing Wu**, Guilin Qi. Gaussian Metric Learning for Few-Shot Uncertain Knowledge Graph Completion. *In: Proceedings of the 26th International Conference on Database Systems for Advanced Applications (DASFAA), Part I*, 2021: 256-271. (Full Paper)

Yuxiang Wang, Xiaoliang Xu, Qifan Hong, Jiahui Jin, **Tianxing Wu**. Top-k star queries on knowledge graphs through semantic-aware bounding match scores. *Knowledge-Based Systems (KBS)*, 2021, 213: 106655. (IF=8.038)

Long Zhang, **Tianxing Wu**, Xiuqi Chen, Bingjie Lu, Chongning Na, Guilin Qi. Auto Insurance Knowledge Graph Construction and Its Application to Fraud Detection. In: *Proceedings of the 10th International Joint Conference on Knowledge Graphs (IJCKG)*, 2021: 64-70. (Full Paper)

Luo Fei, **Tianxing Wu**, Arijit Khan. Online Updates of Knowledge Graph Embedding. In: *Proceedings of the 10th International Conference on Complex Networks and Their Applications (COMPLEX NETWORKS)*, Volume 2, 2021: 523-535. (Full Paper)

Yike Wu, Yipeng Zhu, Jingchen Li, Chengye Zhang, Tianling Gong, Xiyuan Du, **Tianxing Wu**. Unmanned Aerial Vehicle Knowledge Graph Construction with SpERT. In: *Proceedings of the 6th China Conference on Knowledge Graph and Semantic Computing (CCKS)*, Evaluation Track, 2021: 151-159. (Full Paper)

## 2020

**Tianxing Wu**, Haofen Wang, Cheng Li, Guilin Qi, Xing Niu, Meng Wang, Lin Li, Chaomin Shi. Knowledge graph construction from multiple online encyclopedias. *World Wide Web-Internet and Web Information Systems (WWWJ)*, 2020, 23(5): 2671-2698. (IF=2.892)

Yuxiang Wang, Arijit Khan, **Tianxing Wu**, Jiahui Jin, Haijiang Yan. Semantic Guided and Response Times Bounded Top-k Similarity Search over Knowledge Graphs. In: *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE)*, 2020: 445-456. (Full Paper)

盛泳潘, 付雪峰, 吴天星. 基于开放域抽取的多文档概念图构建研究. *计算机应用研究*, 2020, 37(01): 19-25.

## 2019

**Tianxing Wu**, Guilin Qi, Bin Luo, Lei Zhang, Haofen Wang. Language-Independent Type Inference of the Instances from Multilingual Wikipedia. *International Journal on Semantic Web and Information Systems (IJSWIS)*, 2019, 15(2): 22-46. (IF=1.833)

Bing Liu, Huan Gao, Guilin Qi, Shangfu Duan, **Tianxing Wu**, Meng Wang. Adversarial Discriminative Denoising for Distant Supervision Relation Extraction. In: *Proceedings of the 24th International Conference on Database Systems for Advanced Applications (DASFAA)*, Part III, 2019: 282-286. (Short Paper)

Yongpan Sheng, Meng Wang, **Tianxing Wu**, Han Xu. Adaptive Local Learning Regularized Nonnegative Matrix Factorization for Data Clustering. *Applied Intelligence*, 2019, 49(6): 2151-2168. (IF=2.882)

Bing Liu, Guilin Qi, Lu Pan, Shangfu Duan, **Tianxing Wu**. Incorporating Human Knowledge in Neural Relation Extraction with Reinforcement Learning. *In: Proceedings of International Joint Conference on Neural Networks (IJCNN)*, 2019. (Full Paper)

Yongpan Sheng, **Tianxing Wu**, Xin Wang: Incorporating Term Definitions for Taxonomic Relation Identification. *In: Proceedings of the 9th Joint International Semantic Technology Conference (JIST)*, 2019: 1-17. (Full Paper)

Lei Zhang, **Tianxing Wu**, Liang Xu, Meng Wang, Guilin Qi, Harald Sack. Emerging Entity Discovery Using Web Sources. *In: Proceedings of the 4th China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2019: 175-184.

Mengyi Zhang, **Tianxing Wu**, Qiu Ji, Guilin Qi. Mining Hypernym-Hyponym Relations from Social Tags via Tag Embedding. *In: Proceedings of the 5th International Conference on Artificial Intelligence and Security (ICAIS)*, 2019: 319-328. (Short Paper)

## 2018

**Tianxing Wu**, Haofen Wang, Guilin Qi, Jiangang Zhu, Tong Ruan. On building and publishing Linked Open Schema from social Web sites. *Journal of Web Semantics (JWS)*, 2018, 51: 39-50. (IF=2.429)

**Tianxing Wu**, Guilin Qi, Cheng Li, Meng Wang. A Survey of Techniques for Constructing Chinese Knowledge Graphs and Their Applications. *Sustainability*, 2018, 10(9): 3245. (IF=2.592)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**, Xuefeng Fu. Detecting bursts in sentiment-aware topics from social media. *Knowledge-Based Systems (KBS)*, 2018, 21(2): 443-461. (IF=4.396)

Qiu Ji, Guilin Qi, Huan Gao, **Tianxing Wu**. Survey on Schema Induction from Knowledge Graphs. *In: Proceedings of the 3rd China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2018: 136-142. (Short Paper)

## 2017

**Tianxing Wu**, Lei Zhang, Guilin Qi, Xuan Cui, Kang Xu. Encoding Category Correlations into Bilingual Topic Modeling for Cross-Lingual Taxonomy Alignment. *In: Proceedings of the 16th International Semantic Web Conference (ISWC), Part I*, 2017: 728-744. (Full Paper)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**. Incorporating Wikipedia concepts and categories as prior knowledge into topic models. *Intelligent Data Analysis (IDA)*, 2017, 21(2): 443-461. (IF=0.772)

**Tianxing Wu**, Du Zhang, Lei Zhang, Guilin Qi. Cross-Lingual Taxonomy Alignment with Bilingual Knowledge Graph Embeddings. *In: Proceedings of the 7th Joint International Semantic Technology Conference (JIST)*, 2017: 251-258. (Short Paper)



**Tianxing Wu**, Cong Gao, Guilin Qi, Lei Zhang, Chuanqi Dong, He Liu, Du Zhang. KG-Buddhism: The Chinese Knowledge Graph on Buddhism. *In: Proceedings of the 7th Joint International Semantic Technology Conference (JIST)*, 2017: 259-267. (Short Paper)

Kang Xu, Feng Liu, **Tianxing Wu**, Sheng Bi, Guilin Qi. A Fast and Effective Framework for Lifelong Topic Model with Self-learning Knowledge. *In: Proceedings of the 16th China National Conference on Computational Linguistics (CCL)*, 2017: 147-158. (Full Paper)

Kang Xu, Junheng Huang, **Tianxing Wu**. A Sentiment and Topic Model with Timeslice, User and Hashtag for Posts on Social Media. *In: Proceedings of the 2nd China Conference on Knowledge Graph and Semantic Computing (CCKS)*, 2017: 59-65. (Short Paper)

漆桂林, 高桓, 吴天星. 知识图谱研究进展. *情报工程*, 2017, 3(1):004-025

## 2016

**Tianxing Wu**, Guilin Qi, Haofen Wang, Kang Xu, Xuan Cui. Cross-Lingual Taxonomy Alignment with Bilingual Biterm Topic Model. *In: Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI)*, 2016: 287-293. (Full Paper)

Kang Xu, Guilin Qi, Junheng Huang, **Tianxing Wu**. A Joint Model for Sentiment-Aware Topic Detection on Social Media. *In: Proceedings of 22nd European Conference on Artificial Intelligence (ECAI)*, 2016: 238-346. (Full Paper)

**Tianxing Wu**, Shengjia Yan, Zhixin Piao, Liang Xu, Ruiming Wang, Guilin Qi. Entity Linking in Web Tables with Multiple Linked Knowledge Bases. *In: Proceedings of the 6th Joint International Semantic Technology Conference (JIST)*, 2016: 239-253. (Full Paper)

## 2014

Haofen Wang, **Tianxing Wu**, Guilin Qi, Ruan Tong. On Publishing Chinese Linked Open Schema. *In: Proceedings of the 13th International Semantic Web Conference (ISWC), Part I*, 2014: 293-308. (Full Paper)

**Tianxing Wu**, Shaowei Ling, Guilin Qi, Haofen Wang. Mining Type Information from Chinese Online Encyclopedias. *In: Proceedings of the 4th Joint International Semantic Technology Conference (JIST)*, 2014: 213-229. (Full Paper)

**Tianxing Wu**, Guilin Qi, Haofen Wang. Zhishi.schema Explorer: A Platform for Exploring Chinese Linked Open Schema. *In: Proceedings of the 7th Chinese Semantic Web Symposium and 2nd Chinese Web Science Conference (CSWS)*, 2014: 174-181. (Demo Paper)

Yanfang Ma, Huan Gao, **Tianxing Wu**, Guilin Qi. Learning Disjointness Axioms With Association Rule Mining and Its Application to Inconsistency Detection of Linked Data.

*In: Proceedings of the 7th Chinese Semantic Web Symposium and 2nd Chinese Web Science Conference (CSWS), 2014: 29-41. (Full Paper)*

## Patents in China

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[1] A Machine Learning Based Approach for Matching Ontologies in Literature Domain, Inventors: **Tianxing Wu**, Guilin Qi, Bin Luo, Bin Lu, Application Number: 201410799922.3. (granted)

[2] A Machine Learning Based Approach for Constructing Social Network Ontologies, Inventors: **Tianxing Wu**, Cheng Li, Guilin Qi, Application Number: 201610115254.7. (granted)

[3] A Table Entity Linking Approach Based on Multiple Knowledge Bases, Inventors: **Tianxing Wu**, Guilin Qi, Taiyun Liu, Shenjia Yan, Zhixin Piao, Liang Xu, Ruiming Wang, Application Number: 201610920031.8. (granted)

[4] An Instance Matching Approach based on Rules, Inventors: **Tianxing Wu**, Lin Li, Guilin Qi, Application Number: 202110320754.5. (under review)

[5] A Paired Entity Disambiguation Approach on Web Tables, Inventors: **Tianxing Wu**, Lin Li, Guilin Qi, Application Number: 202110720148.2. (under review)

[6] An Entity Alignment Approach based Multiple Entity Contexts, Inventors: **Tianxing Wu**, Lin Li, Guilin Qi, Application Number: 202110346496.8. (granted)

[7] A Root Cause Tracing Approach for Distributed System Faults based on Knowledge Graph Techniques, Inventors: **Tianxing Wu**, Anyuan Luo, Guilin Qi, Sudong Fang, Application Number: 202110722163.0. (under review)

[8] A Machine Learning Based Approach for Cross-Lingual Taxonomy Alignment, Inventors: Yishu Fang, Guilin Qi, **Tianxing Wu**, Bin Lu, Application Number: 201510105414.5. (granted)

[9] A Cross-Lingual Taxonomy Matching Method Based on Topic Model, Inventors: Xuan Cui, Guilin Qi, **Tianxing Wu**, Application Number: 201710441927.2. (granted)

[10] A Dynamic Knowledge Graph Updating Approach, Inventors: Guilin Qi, Cheng Li, Lin Li, **Tianxing Wu**, Application Number: 201810627957.7. (under review)

[11] A Dynamic Knowledge Graph Representation Learning Approach under Dynamic Scenarios, Inventors: Chen Li, **Tianxing Wu**, Guilin Qi, Application Number: 202010972901.2. (under review)

- [12] A Semantic Matching Model for Knowledge Points Location, Inventors: Yike Wu, **Tianxing Wu**, Lin Li, Chaoyu Gao, Guilin Qi, Application Number: 202110319217.9. (under review)
- [13] A Machine Learning Based Approach and System for Predicting the Incidence of Hepatitis E, Inventors: Shutong Zhu, Minghao Wang, **Tianxing Wu**, Application Number: 202211607089.9. (under review)
- [14] An Early Risk Warning Approach for Chronic Disease Complications based on Few-Shot Deep Learning, Inventors: Jingyi Xu, **Tianxing Wu**, Haoyu Dai, Application Number: 202310657353.8. (under review)
- [15] An Optical Character Recognition Method for Medical Images, Inventors: Tianzhe Hu, **Tianxing Wu**, Yipeng Zhu, Application Number: 202410478452.4. (under review)
- [16] A Class and Time Sensitive Event Sequence Prediction Method, System, Media, and Equipment. Peiji Yu, **Tianxing Wu**, Application Number: 202410748224.4. (under review)

## Service Activities

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### Academic Organizations

CCF Information System Committee Executive Member,  
 CIPS Language and Knowledge Computing Committee Member,  
 CCF YOCSEF Nanjing Academic Committee Member (President, 2024-2025; Vice President, 2023-2024; Member, 2022-),  
 JSAI Knowledge Engineering and Intelligent Service Committee Member,  
 JSAI Natural Language Processing Committee Member.

### Conferences

- 2025 **Program Committee Member** of ACL, SIGKDD.
- 2024 **CCKS Evaluation Chair, Resource Track Chair,**  
**Senior Program Committee Member** of IJCAI,  
**Program Committee Member** of NeurIPS, ACL, TheWebConf (WWW),  
 SIGKDD, ISWC, EMNLP, ECAI, IEA/AIE,  
 WISA.
- 2023 **CCKS Evaluation Chair,**  
**Senior Program Committee Member** of IJCAI,  
**Program Committee Member** of ACL, ISWC, EMNLP, ECAI, CSCWD,  
 IJCKG, CCKS, IEA/AIE, WISA.  
**External Reviewer** of TheWebConf (WWW), NeurIPS.
- 2022 **CCKS Resource Track Chair,**  
**Program Committee Member** of AAAI, IJCAI, EMNLP, IJCKG, CCKS.

- 2021 **CCKS Poster & Demo Chair,**  
**Program Committee Member** of AAI, IJCAI, IJCKG, CCKS, PIC,  
**External Reviewer** of TheWebConf (WWW).
- 2020 **Program Committee Member** of IJCAI, ECAI, ISWC, PAKDD, JIST,  
**External Reviewer** of SIGMOD, VLDB, TheWebConf (WWW), CIKM.
- 2019 **Program Committee Member** of JIST,  
**External Reviewer** of VLDB, TheWebConf (WWW), ISWC, DSAA.
- 2018 **External Reviewer** of IJCAI, ICDM.
- 2017 **External Reviewer** of AAI, IJCAI.
- 2016 **External Reviewer** of AAI, IJCAI, WWW, ISWC, JIST.
- 2015 **External Reviewer** of AAI, WWW, ISWC, ESWC, JIST.
- 2014 **External Reviewer** of ISWC, EKAW, CSWS.

## **Journals**

### **Guest Editor:**

- 2023 Applied Sciences: Special Issue "New Advances for Open-Domain Information Mining in Theories and Applications".
- 2022 Mathematics: Special Issue "Mathematical Computation in Knowledge Graph: Theories, Techniques, and Applications".

**Editorial Board Member** of International Journal on Semantic Web and Information Systems (IJSWIS), Data Intelligence (DI).

- 2024 **Reviewer** of IEEE Transactions on Knowledge and Data Engineering (TKDE), World Wide Web-Internet and Web Information Systems (WWWJ), Data Science and Engineering (DSE), ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Knowledge-based Systems (KBS), International Journal on Semantic Web and Information Systems (IJSWIS), Data Intelligence (DI).
- 2023 **Reviewer** of IEEE Transactions on Knowledge and Data Engineering (TKDE), World Wide Web-Internet and Web Information Systems (WWWJ), ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Knowledge-based Systems (KBS), Applied Intelligence (APIN), International Journal on Semantic Web and Information Systems (IJSWIS), Neural Processing Letters, Chinese Journal of Computers (计算机学报), Journal of Computer Research and Development (计算机研究与发展).
- 2022 **Reviewer** of Journal of Web Semantics (JWS), Knowledge and Information Systems (KAIS), Information Processing & Management (IPM), Knowledge-based Systems (KBS), Applied Intelligence (APIN), Engineering Applications of Artificial Intelligence (EAAI), International Journal on Semantic Web and Information Systems (IJSWIS), Aslib Journal of Information Management

- (AJIM), Scientometrics (SCIM), Heritage Science, Data Intelligence (DI), Intelligent Computing, Journal of Software (软件学报).
- 2021 **Reviewer** of Journal of Web Semantics (JWS), Knowledge-based Systems (KBS), Applied Intelligence (APIN), International Journal on Semantic Web and Information Systems (IJSWIS), Data Intelligence (DI), Journal of Software (软件学报).
- 2020 **Reviewer** of IEEE Transactions on Knowledge and Data Engineering (TKDE), ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Knowledge-based Systems (KBS), Future Generation Computer Systems (FGCS), Applied Intelligence (APIN), Data Intelligence (DI), Information.
- 2019 **Reviewer** of Knowledge-based Systems (KBS), Concurrency and Computation: Practice and Experience (CCPE), International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), Information,  
**External Reviewer** of Information Sciences (IS).
- 2018 **Reviewer** of Knowledge-based Systems (KBS), International Journal on Semantic Web and Information Systems (IJSWIS),  
**External Reviewer** of Journal of Web Semantics (JWS).
- 2017 **Reviewer** of International Journal on Semantic Web and Information Systems (IJSWIS), Journal of Software (软件学报).
- 2016 **External Reviewer** of Journal of Web Semantics (JWS).
- 2015 **External Reviewer** of Journal of Web Semantics (JWS).

## Workshops

- 2024 **Co-Chair** of LLM+KG, International Workshop on Data Management Opportunities in Unifying Large Language Models + Knowledge Graphs (co-located with VLDB 2024),  
**Co-Chair** of LKM, the First International OpenKG Workshop Large Knowledge-Enhanced Models (co-located with IJCAI 2024),  
**Program Committee Member** of the Joint Workshop of the 5th Extraction and Evaluation of Knowledge Entities from Scientific Documents (EEKE2024) and the 4th AI + Informetrics (AII2024) (co-located with iConference 2024).
- 2023 **Program Committee Member** of the Joint Workshop of the 4th Extraction and Evaluation of Knowledge Entities from Scientific Documents (EEKE 2023) and the 3rd AI + Informetrics (AII 2023) (co-located with JCDL 2023).
- 2022 **Program Committee Member** of EEKE 2022, the 3rd Workshop on Extraction and Evaluation of Knowledge Entities from Scientific Documents (co-located with JCDL 2022).
- 2021 **Program Committee Member** of EEKE 2021, the 2nd Workshop on Extraction and Evaluation of Knowledge Entities from Scientific Documents (co-located

- with JCDL 2021).
- 2020 **Program Committee Member** of GRADES-NDA 2020, the 3rd Joint International Workshop on Graph Data Management Experiences & Systems and Network Data Analytics (co-located with SIGMOD 2020).
- 2019 **Program Committee Member** of GRADES-NDA 2019, the 2nd Joint International Workshop on Graph Data Management Experiences & Systems and Network Data Analytics (co-located with SIGMOD 2019).
- 2018 **Program Committee Member** of BigGraphs 2018, the 5th International Workshop on High Performance Big Graph Data Management, Analysis, and Mining (co-located with IEEE BigData 2018).

## Teaching

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### Undergraduate Courses

- **Instructor**, Knowledge Engineering, Southeast University, China
- **Instructor**, Knowledge Graph and Applications, Southeast University, China
- **Instructor**, Knowledge Engineering Practice, Southeast University, China
- **Teaching Assistant**, Introduction to Databases, NTU, Singapore

## Current and Former Supervised Students

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### Master Students

2023

- Shilin Chen (AI-based Blood Pressure Prediction) (Paper in SIGIR 2024)
- Yunchang Liu (Geometric Knowledge Graph Embedding) (Papers in WISA 2024 (Best Student Paper Award), SIGIR 2024)
- Wei Li (Uncertain Knowledge Graph Construction) (Paper in SIGIR 2024)
- Lizhe Cao (AI-based Social Science Analysis)
- Hangyu Sha (AI-based Medical Health)

2022

- Jingting Wang (Uncertain Knowledge Graph Representation Learning) (Papers in CCKS 2022 (Best Paper Award), SIGIR 2024, ISWC 2024)
- Feiyue Wu (Medication Recommendation) (Paper in ISWC 2023)

2021

- Yilin Chen (Rule Mining and Reasoning) (Papers in CCKS 2022, WISA 2024 (Best Student Paper Award)) (Next Position: Algorithm Engineer, iFLYTEK)

- Xudong Cao (Knowledge Graph Construction) (Papers in ISWC 2023, Data Intelligence 2023; ISWC 2023 Student Travel Award) (Next Position: NLP Engineer, Baidu)
- Yipeng Zhu (Dialogue System) (Papers in CCKS 2021, CCKS 2022, ISWC 2023) (Next Position: Software Engineer, Huawei)

2020

- Chaoyu Gao (Knowledge Graph Completion) (Paper in EEKE 2022, Applied Sciences 2022) (Next Position: Civil Servant, The Organization Department of Jiangsu Provincial Government)

### **Undergraduate Students**

2020

- Jiewen Hou (Few-shot Knowledge Graph Completion) (Paper in ISWC 2024) (Next Position: PhD Student, Institute of Computing Technology, Chinese Academy of Sciences)

2019

- Tianling Gong (Medical Knowledge Extraction) (Paper in ISWC 2023) (Next Position: Master Student, Boston University)

2018

- Minghao Wang (Infectious Disease Prediction) (Paper in Front. Public Health 2022, Epidemiology & Infection 2022) (Next Position: Master Student, The Hong Kong University of Science and Technology)

### **Competitions**

2023

- The First Prize of the 14th Competition of Chinese College Students Service Outsourcing Innovation and Entrepreneurship.

*supervised students: Jingting Wang, Guitao Wang, Feiyue Wu, Jingyi Xu, Shutong Zhu*

2022

- Rank the Third in the CCKS 2022 Evaluation Task: Foreign Military Unmanned System Knowledge Graph Construction.

*supervised students: Yilin Chen, Jingting Wang, Shutong Zhu, Haoyu Dai, Yuang Gu, Jingyi Xu, Yipeng Zhu*

- The Excellent Team of the Future Cup Activists of Artificial Intelligence & Robotic Projects (Knowledge Graph Championship).

*supervised students: Yipeng Zhu, Xudong Cao, Feiyue Wu, Tianling Gong, Jingyi Xu*

2021

▫ The Third Prize of the 12th Competition of Chinese College Students Service Outsourcing Innovation and Entrepreneurship.

*supervised students: Minghao Wang, Yike Wu, Jingyi Xu, Chaoyu Gao, Xinnan Guo*

▫ Rank the Second in the CCKS 2021 Evaluation Task: Unmanned Aerial Vehicle Knowledge Graph Construction: Construction Phase;

Rank the Third in the CCKS 2021 Evaluation Task: Unmanned Aerial Vehicle Knowledge Graph Construction: Application Phase.

*supervised students: Yike Wu, Yipeng Zhu, Tianling, Gong, Chenye Zhang, Jingchen Li, Xiyuan Du*

▫ 3 teams won the Second Prizes of the Future Cup Activists of Artificial Intelligence & Robotic Projects (Knowledge Graph Championship).

*supervised students:*

*team1: Xiangtian Xue, Qianyi Zhu, Bin Zhu;*

*team2: Yilun Kong, Xinlong Yin, Xinjian Yin, Chenhao Li;*

*team3: Yike Wu, Yanglong He, Yintai Li, Xiyuan Du, Jingchen Li*

One team won the Third Prize of the Future Cup Activists of Artificial Intelligence & Robotic Projects (Knowledge Graph Championship).

*supervised students: Yichen Liu, Jiteng Zhao, Xin Lin*