

Xiuxia Wang (王夏霞)

Wolfson Building, Parks Road, Oxford, OX1 3QD, United Kingdom
Email: xiuxia.wang@cs.ox.ac.uk, Homepage: <https://xiuxia-wang.github.io/>

About Me

Currently, I am a Ph.D. student in the [Department of Computer Science](#) of [University of Oxford](#). I am a member of the [Data and Knowledge Group](#), advised by Prof. [Bernardo Cuenca Grau](#), Prof. [Ian Horrocks](#), and Dr. [David Tena Cucala](#). Before that, I achieved my research-based M.S. degree of Computer Technology from [Nanjing University](#) in 2022. I worked in [Websoft Research Group](#), supervised by Prof. [Gong Cheng](#) and Prof. [Yuzhong Qu](#). I obtained my B.S. degree of Information and Computing Science from [Nanjing University of Aeronautics and Astronautics](#) in 2019.

Education

University of Oxford Ph.D. student of Computer Science Advisors: Prof. Bernardo Cuenca Grau, Prof. Ian Horrocks, Dr. David Tena Cucala	<i>Jan. 2023 – approx. 2026</i>
Nanjing University M.S. degree of Computer Technology Supervisors: Prof. Gong Cheng, Prof. Yuzhong Qu	<i>Sept. 2019 – June 2022</i>
Nanjing University of Aeronautics and Astronautics B.S. degree of Information and Computing Science GPA: 4.5/5.0, Ranking: 1/70	<i>Sept. 2015 – June 2019</i>

Research Interests

My research interests include **neuro-symbolic reasoning**, **knowledge graphs**, and **semantic search** technologies applied in intelligent systems.

Currently, I focus on interpreting graph neural network models for knowledge graph reasoning using symbolic rules, aiming to achieve both **effective** and **explainable** systems. I have also worked on semantic search techniques applied in dataset search systems, including structured data summarization, query analysis, and information retrieval.

Publications (Reverse Chronological)

[\[DBLP Page\]](#) [\[Google Scholar\]](#) [\[Semantic Scholar\]](#)

1. Xiang Huang, Jiayu Shen, Shanshan Huang, Sitao Cheng, **Xiuxia Wang**, Yuzhong Qu
[TARGA: Targeted Synthetic Data Generation for Practical Reasoning over Structured Data](#).
The 63rd Annual Meeting of the Association for Computational Linguistics (ACL 2025).
2. **Xiuxia Wang**, David Tena Cucala, Bernardo Cuenca Grau, Ian Horrocks
[Faithful Rule Extraction for Differentiable Rule Learning Models](#).
The 12th International Conference on Learning Representations (ICLR 2024).
3. **Xiuxia Wang**, Gong Cheng
[A Survey on Extractive Knowledge Graph Summarization: Applications, Approaches, Evaluation, and Future Directions](#).
The 33rd International Joint Conference on Artificial Intelligence (IJCAI 2024).

4. Qiaosheng Chen, Weiqing Luo, Zixian Huang, Tengting Lin, **Xiaxia Wang**, Ahmet Soylu, Basil Ell, Baifan Zhou, Evgeny Kharlamov, Gong Cheng
[ACORDAR 2.0: A Test Collection for Ad Hoc Dataset Retrieval with Densely Pooled Datasets and Question-Style Queries.](#)
 The 47th International ACM SIGIR Conference (SIGIR 2024).
5. Zixian Huang, Xinwei Huang, Ao Wu, **Xiaxia Wang**, Gong Cheng
[Transforming decoder-only models into encoder-only models with improved understanding capabilities.](#)
 Knowledge-Based Systems 309 (KBS).
6. **Xiaxia Wang**, Gong Cheng, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu
[BANDAR: Benchmarking Snippet Generation Algorithms for \(RDF\) Dataset Search.](#)
 IEEE Transactions on Knowledge and Data Engineering 35(2) (TKDE 2023).
7. Tengting Lin, Qiaosheng Chen, Gong Cheng, Ahmet Soylu, Basil Ell, Ruoqi Zhao, Qing Shi, **Xiaxia Wang**, Yu Gu, Evgeny Kharlamov
[ACORDAR: A Test Collection for Ad Hoc Content-Based \(RDF\) Dataset Retrieval.](#)
 The 45th International ACM SIGIR Conference (SIGIR 2022).
8. **Xiaxia Wang**, Tengting Lin, Weiqing Luo, Gong Cheng, Yuzhong Qu
[CKGSE: A Prototype Search Engine for Chinese Knowledge Graphs.](#)
 Data Intelligence 4(1) (DI 2022).
9. **Xiaxia Wang**, Gong Cheng, Tengting Lin, Jing Xu, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu
[PCSG: Pattern-Coverage Snippet Generation for RDF Datasets.](#)
 The 20th International Semantic Web Conference (ISWC 2021).
10. **Xiaxia Wang**, Tengting Lin, Weiqing Luo, Gong Cheng, Yuzhong Qu
[Content-Based Open Knowledge Graph Search: A Preliminary Study with OpenKG.CN.](#)
 The 2021 China Conference on Knowledge Graph and Semantic Computing (CCKS 2021).
11. **Xiaxia Wang**, Jinchi Chen, Shuxin Li, Gong Cheng, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu
[A Framework for Evaluating Snippet Generation for Dataset Search.](#)
 The 18th International Semantic Web Conference (ISWC 2019).
12. **Xiaxia Wang**, Gong Cheng, Evgeny Kharlamov
[Towards Multi-Facet Snippets for Dataset Search.](#)
 The 6th International Workshop on Dataset PROFiling and Search (PROFILES 2019).
13. Jinchi Chen, **Xiaxia Wang**, Gong Cheng, Evgeny Kharlamov, Yuzhong Qu
[Towards More Usable Dataset Search: From Query Characterization to Snippet Generation.](#)
 The 28th ACM International Conference on Information and Knowledge Management (CIKM 2019).

Invited Talks

- [Faithful Rule Learning and Extraction with Applications.](#)
invited by Dr. Nico Potyka

Cardiff University, May 2025

Awards and Honors

- | | |
|--|-------------|
| • IJCAI-AIJ Travel Grant | 2024 |
| • Outstanding Master Thesis of Jiangsu Computer Society | 2023 |
| • Outstanding Master Thesis of Nanjing University | 2023 |
| • Bosch Scholarship on ‘Collaborative AI in Production’ (fully funded for Ph.D. program) | 2022 |
| • National Scholarship | 2021 |
| • ISWC Student Grant | 2021 |
| • First-Class Academic Scholarship of Nanjing University | 2020 – 2022 |

- Outstanding Graduate Student of Nanjing University 2019, 2021
- Jiangsu Financial Leasing Scholarship 2019
- Huawei Scholarship 2018
- First-Class Outstanding Student Scholarship 2016 – 2019

Teaching Experience

- Databases *Hilary and Trinity Terms 2025*
 - Giving weekly classes and marking problem sheets
 - Classes rated by students: 4.47/5.00, with departmental teaching award nomination
- Database Systems Implementation *Hilary Term 2024*
 - Giving weekly classes and marking problem sheets
 - Classes rated by students: 4.27/5.00
- Graph Theory and Algorithms *Spring 2022*
- Graph Theory *Spring 2021, Spring 2020*
 - Marking problem sheets, answering questions, and invigilation
 - For about 70 undergraduate and graduate students

Academic Services

Program Committee or Reviewer

- ACL Rolling Review (ARR) 2025
- Annual Conference on Neural Information Processing Systems (NeurIPS) 2025
- International ACM SIGIR Conference (SIGIR) 2025
- International Conference on Information and Knowledge Management (CIKM) 2020 – 2025
- International Conference on Knowledge Representation and Reasoning (KR) 2024
- International Conference on Learning Representations (ICLR) 2025
- International Conference on Machine Learning (ICML) 2025
- International Joint Conference on Artificial Intelligence (IJCAI) 2025
- International Semantic Web Conference (ISWC) 2022 – 2023, 2025
- IEEE International Conference on Big Data (BigData) 2025

Review Committee

- Journal of Web Semantics (JoWS)
- Knowledge and Information Systems (KAIS)
- Transactions on Knowledge Discovery from Data (TKDD)
- Transactions on Graph Data and Knowledge (TGDK)

Others

- Conference VP of Oxford Women in Computer Science Society (OxWoCS)
 - Co-chair of the 10th OxBridge Conference (held in Oxford) 2024
 - Co-chair of the 11th OxBridge Conference (held in Cambridge) 2025
- Assistant Workflow Chair of IJCAI 2023

Language Skills

- Chinese: Native (Mandarin; Wu language, 吴语)
- English: Proficient