

# Xi Xia Wang (王夏霞)

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## About Me

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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 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

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

## Research Interests

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

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

## Publications (Reverse Chronological)

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1. **Xi Xia Wang**, David J. Tena Cucala, Bernardo Cuenca Grau, Ian Horrocks  
[Faithful Rule Extraction for Differentiable Rule Learning Models](#).  
In Proc. of the 12th International Conference on Learning Representations (ICLR 2024).
2. **Xi Xia Wang**, Gong Cheng  
[A Survey on Extractive Knowledge Graph Summarization: Applications, Approaches, Evaluation, and Future Directions](#).  
In Proc. of the 33rd International Joint Conference on Artificial Intelligence (IJCAI 2024).
3. Qiaosheng Chen, Weiqing Luo, Zixian Huang, Tengting Lin, **Xi Xia Wang**, Ahmet Soyulu, 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](#).  
In Proc. of the 47th International ACM SIGIR Conference (SIGIR 2024).

4. **Xi Xia Wang**, Gong Cheng, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu  
[BANDAR: Benchmarking Snippet Generation Algorithms for \(RDF\) Dataset Search.](#)  
 In IEEE Transactions on Knowledge and Data Engineering 35(2) (TKDE 2023).
5. Tengteng Lin, Qiaosheng Chen, Gong Cheng, Ahmet Soylu, Basil Ell, Ruoqi Zhao, Qing Shi, **Xi Xia Wang**, Yu Gu, Evgeny Kharlamov  
[ACORDAR: A Test Collection for Ad Hoc Content-Based \(RDF\) Dataset Retrieval.](#)  
 In Proc. of the 45th International ACM SIGIR Conference (SIGIR 2022).
6. **Xi Xia Wang**, Tengteng Lin, Weiqing Luo, Gong Cheng, Yuzhong Qu  
[CKGSE: A Prototype Search Engine for Chinese Knowledge Graphs.](#)  
 In Data Intelligence 4(1) (DI 2022).
7. **Xi Xia Wang**, Gong Cheng, Tengteng Lin, Jing Xu, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu  
[PCSG: Pattern-Coverage Snippet Generation for RDF Datasets.](#)  
 In Proc. of the 20th International Semantic Web Conference (ISWC 2021). With Student Grant.
8. **Xi Xia Wang**, Tengteng Lin, Weiqing Luo, Gong Cheng, Yuzhong Qu  
[Content-Based Open Knowledge Graph Search: A Preliminary Study with OpenKG.CN.](#)  
 In Proc. of the 2021 China Conference on Knowledge Graph and Semantic Computing (CCKS 2021).
9. **Xi Xia Wang**, Jinchi Chen, Shuxin Li, Gong Cheng, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu  
[A Framework for Evaluating Snippet Generation for Dataset Search.](#)  
 In Proc. of the 18th International Semantic Web Conference (ISWC 2019).
10. **Xi Xia Wang**, Gong Cheng, Evgeny Kharlamov  
[Towards Multi-Facet Snippets for Dataset Search.](#)  
 In Proc. of the 6th International Workshop on Dataset PROFILING and Search (PROFILES 2019).
11. Jinchi Chen, **Xi Xia Wang**, Gong Cheng, Evgeny Kharlamov, Yuzhong Qu  
[Towards More Usable Dataset Search: From Query Characterization to Snippet Generation.](#)  
 In Proc. of the 28th ACM International Conference on Information and Knowledge Management (CIKM 2019).  
[\[DBLP Page\]](#)      [\[Google Scholar\]](#)      [\[Semantic Scholar\]](#)

## Awards and Honors

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- 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
- 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 Assistant

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- Database Systems Implementation *Hilary Term 2023*
  - 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

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### Program Committee Member

- International Conference on Information and Knowledge Management (CIKM) *2020 – 2024*
- International Semantic Web Conference (ISWC) *2022 – 2023*
- International Conference on Knowledge Representation and Reasoning (KR) *2024*

### Review Committee Member

- Journal of Web Semantics

### Others

- Oxford Women in Computer Science Society (OxWoCS): Committee Member *2023*
  - Co-chair of the 10th OxBridge Women in Computer Science Conference (OxBridge 2024)
- IJCAI: Assistant Workflow Chair *2023*

## Language Skills

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- Chinese (Mandarin): Native
- English: Bilingual

Updated at: *April 2024*