

# Xiaxia Wang (王夏霞)

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## About Me

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I am a Ph.D. student at the [Department of Computer Science](#) of [University of Oxford](#). My research interests include **neuro-symbolic reasoning**, **knowledge graphs**, and **semantic search** technologies applied in intelligent systems. I also maintain a broader interest in emerging topics such as large language models.

My recent works focus on interpreting graph neural network models applied over graph and tabular data by symbolic rule extraction, aiming to achieve **effective** systems with **theoretically guaranteed explainability**. I have also worked on semantic search technologies applied in dataset search systems, including structured data summarization, query analysis, and information retrieval.

## Education

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### University of Oxford

*Jan. 2023 – approx. 2026*

Ph.D. student of Computer Science

Advisors: Prof. [Bernardo Cuenca Grau](#), Prof. [Ian Horrocks](#), Dr. [David Tena Cucala](#)

### Nanjing University

*Sept. 2019 – June 2022*

M.S. in Computer Technology

Supervisors: Prof. [Gong Cheng](#), Prof. [Yuzhong Qu](#)

### Nanjing University of Aeronautics and Astronautics

*Sept. 2015 – June 2019*

B.S. in Information and Computing Science

GPA: 4.5/5.0, Ranking: 1/70

## Selected Publications

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[\[DBLP Page\]](#)

[\[Google Scholar\]](#)

[\[Semantic Scholar\]](#)

1. **Xiaxia 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)
2. **Xiaxia 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)
3. **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)
4. **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)
5. **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)

6. **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)

## Invited Talks

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- [Faithful Rule Learning and Extraction with Applications](#)  
*invited by Dr. Nico Potyka* *Cardiff University, May 2025*
- Collaborative AI in Production: Faithful Rule Learning and Applications  
Annual Meeting of the Bosch-Forschungsstiftung *Bosch Research Campus, 2023 – 2025*

## Awards and Honors

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- 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*
- First-Class Outstanding Student Scholarship *2016 – 2019*

## Teaching Experience

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- 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 Service

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### Program Committee or Reviewer

- ACL Rolling Review (ARR) *2025*
- Annual AAAI Conference on Artificial Intelligence (AAAI) *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 Vice President of Oxford Women in Computer Science Society (OxWoCS)
  - Co-chair of the 11th OxBridge Conference (held in Cambridge) 2025
  - Co-chair of the 10th OxBridge Conference (held in Oxford) 2024
- Co-interviewer of Oxford MSc Admissions 2025
- Assistant Workflow Chair of IJCAI 2023

#### **Language Skills**

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- Chinese (Mandarin; Wu Language): Native
- English: Proficient

Updated: *August 2025*