Xiaxia Wang (王夏霞)

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About Me

Currently, I am a Ph.D. student in the <u>Department of Computer Science</u> of <u>University of Oxford</u>. I am a member of the <u>Data and Knowledge Group</u>, advised by Prof. <u>Ian Horrocks</u>. Before that, I achieved my M.S. degree of Computer Technology from <u>Nanjing University</u> in 2022. I worked in <u>Websoft Research Group</u>, supervised by Prof. <u>Gong Cheng</u> and Prof. <u>Yuzhong Qu</u>. I obtained my B.S. degree of Information and Computing Science from <u>Nanjing University</u> of Aeronautics and Astronautics in 2019.

Education

University of Oxford

Oct. 2022 - Now

Ph.D. student of Computer Science Supervisor: Prof. Ian Horrocks

Nanjing University

Sept. 2019 - June 2022

M.S. degree of Computer Technology

Supervisors: Prof. Gong Cheng and Prof. Yuzhong Qu

Nanjing University of Aeronautics and Astronautics

Sept. 2015 - June 2019

B.S. degree of Information and Computing Science

GPA: 4.5/5.0, Ranking: 1/70

Research Interest

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

Currently I am interested in combining symbolic rules with neural methods to achieve explainable, effective systems. I have also worked on semantic search algorithms applied in dataset search systems, including data summarization, query analysis, and information retrieval.

Publications (Reverse Chronological)

- Xiaxia Wang, David J. Tena Cucala, Bernardo Cuenca Grau, Ian Horrocks
 <u>Faithful Rule Extraction for Differentiable Rule Learning Models</u>.
 In Proc. of the 12th International Conference on Learning Representations (ICLR 2024).
- Xiaxia 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).
- 3. Tengteng 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.

In Proc. of the 45th International ACM SIGIR Conference (SIGIR 2022).

- Xiaxia Wang, Tengteng Lin, Weiqing Luo, Gong Cheng, Yuzhong Qu <u>CKGSE</u>: A Prototype Search Engine for Chinese Knowledge Graphs.
 In Data Intelligence 4(1) (DI 2022).
- Xiaxia Wang, Gong Cheng, Tengteng Lin, Jing Xu, Jeff Z. Pan, Evgeny Kharlamov, Yuzhong Qu <u>PCSG</u>: Pattern-Coverage Snippet Generation for RDF Datasets.

 In Proc. of the 20th International Semantic Web Conference (ISWC 2021). With Student Grant.

- 6. **Xiaxia 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).
- 7. Xiaxia 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).

8. **Xiaxia 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).

Jinchi Chen, Xiaxia Wang, Gong Cheng, Evgeny Kharlamov, Yuzhong Qu
 <u>Towards More Usable Dataset Search: From Query Characterization to Snippet Generation.</u>
 In Proc. of the 28th ACM International Conference on Information and Knowledge Management (CIKM 2019).

[DBLP Page] [Google Scholar] [Semantic Scholar]

Awards and Honors

• 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

• Database Systems Implementation

Hilary Term 2023

- Marking problem sheets and giving weekly classes.
- Graph Theory and Algorithms

Spring 2022

• Graph Theory

Spring 2021, Spring 2020

- For about 70 undergraduate and graduate students.

Academic Services

Program Committee Member

• CIKM
2020 - 2023

• ISWC 2022 - 2023

Review Committee Member

• Journal of Web Semantics

Others

• Oxford Women in Computer Science Society (OxWoCS): Committee Member

2023

• IJCAI: Assistant Workflow Chair

2023

Language Skills

• Chinese (Mandarin): Native

• English: Bilingual

Updated at: Feb. 2024