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>Bernardo Cuenca Grau</u>, Prof. <u>Ian Horrocks</u>, and Dr. <u>David Tena Cucala</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 and Prof. 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

Advisors: Prof. Bernardo Cuenca Grau, Prof. Ian Horrocks, Dr. David Tena Cucala

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 Interests

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 network models to achieve both **explainable** and **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 <u>BANDAR: Benchmarking Snippet Generation Algorithms for (RDF) Dataset Search.</u>
 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).
- 4. Xiaxia 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).

5. Xiaxia 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.

- 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).

9. Jinchi Chen, Xiaxia 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

• 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

Spring 2021, Spring 2020

- Giving weekly classes and marking problem sheets
- Graph Theory and Algorithms

Spring 2022

- - Marking problem sheets, answering questions, and invigilation
 - For about 70 undergraduate and graduate students

Academic Services

• Graph Theory

Program Committee Member

 CIKM 2020 - 2024

 ISWC 2022 - 2023

Review Committee Member

• Journal of Web Semantics

Others

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

• IJCAI: Assistant Workflow Chair

2023 2023

Language Skills

• Chinese (Mandarin): Native

• English: Bilingual

Updated at: Mar. 2024