

Zhiliang (Leon) Xiang

xiangz6@cardiff.ac.uk | [zl-xiang.github.io](https://github.com/zl-xiang) | [Zhiliang Xiang](https://www.linkedin.com/in/ZhiliangXiang) 向芷良

Cardiff University, Senghennydd Rd, Cardiff CF24 4AG, UK

EDUCATION

- **Cardiff University** Jan. 2023 - Present
PhD Student Cardiff, UK
 - **Thesis:** Logic-based System to Collective Entity Resolution
 - **Supervisor:** Yazmín Ibáñez-García, Víctor Gutiérrez-Basulto
 - **Advised by:** Meghyn Bienvenu, Gianluca Cima
- **Cardiff University** Oct. 2022 - Oct. 2020
MSc Advanced Computer Science with High Distinction Cardiff, UK
 - **Dissertation:** Neuro-symbolic Approaches for Abstract and Relational Visual Reasoning Tasks
 - **Supervisor:** Víctor Gutiérrez-Basulto
- **Guangxi University of Science and Technology** Sept. 2015 - Sept. 2011
B.Sc. in Information and Computing Science Guangxi, China

INTERNSHIP/RESEARCH VISIT

- **RATIO Research Group, LaBRI, Université de Bordeaux** Mar. 2026 - June 2026
Topic: (Provisional) Certain/Brave Solutions for Logic-based Entity Resolution Bordeaux, France
- **Inoue Laboratory, National Institute of Informatics** Sept. 2024 - Mar. 2025
Topic: Learning Rules for Entity Resolution Tokyo, Japan
- **Centre for Artificial Intelligence, Robotics and Human-Machine Systems (IROHMS)** Sept. 2021 - Dec. 2022
Topic: Entity Resolution via Answer Set Programming Cardiff, UK

PROJECTS

- **Intelligent Handling of Imperfect Data (ANR Chair in AI)** 2023-Current
with the LaBRI, Université de Bordeaux (Participant).
- **Embedding Methods to Complex Logical Query Answering on Knowledge Graph** 2021-2025
with Uni. of Edinburgh and Shanxi Uni. (Participant).
- **The OECD's Artificial Intelligence and the Future of Skills (AIFS)** 2021-2022
with Uni. of Leeds & VRAIN, UPV (Participant).

GRANTS

- **COMSC PhD Scholarship 2023 with Oversea Student Fee Waiver (£22,700*3) + Stipend** 2023
COMSC, Cardiff University
- **EDBT-INTENDED School on Data and Knowledge Student Grant** 2022
CNRS & University of Bordeaux

SELECTED PUBLICATIONS

C=CONFERENCE, J=JOURNAL

- [C.1] Zhiliang Xiang, Meghyn Bienvenu, Gianluca Cima, Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García (2025). **Advances in Logic-Based Entity Resolution: Enhancing ASPEN with Local Merges and Optimality Criteria.** In *Proceedings of the 22nd International Conference on Principles of Knowledge Representation and Reasoning, KR 2025.*
- [J.1] Meghyn Bienvenu, Gianluca Cima, Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García, Zhiliang Xiang (2025). **Recent Advances in Logic-Based Entity Resolution.** *Database Principle Column, SIGMOD Record, Volume 54.*
- [C.2] Zhiliang Xiang, Meghyn Bienvenu, Gianluca Cima, Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García. (2024). **ASPEN: ASP-Based System for Collective Entity Resolution.** In *Proceedings of the 21st International Conference on Principles of Knowledge Representation and Reasoning, KR 2024.*
- [C.3] Zhiwei Hu, Víctor Gutiérrez-Basulto, Zhiliang Xiang, Ru Li, Jeff Z. Pan (2023). **HyperFormer: Enhancing Entity and Relation Interaction for Hyper-Relational Knowledge Graph Completion.** In *proceedings of the 32nd ACM International Conference on Information and Knowledge Management, CIKM 2023.*

- [C.4] Zhiwei Hu, Víctor Gutiérrez-Basulto, **Zhiliang Xiang**, Ru Li, Jeff Z. Pan (2022). **Transformer-based Entity Typing in Knowledge Graphs**. In *proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, EMNLP 2022*.
- [C.5] Zhiwei Hu, Víctor Gutiérrez-Basulto, **Zhiliang Xiang**, Xiaoli Li, Ru Li, Jeff Z. Pan: (2022). **Type-aware Embeddings for Multi-Hop Reasoning over Knowledge Graphs**. In *proceedings of the Thirty-First International Joint Conference on Artificial Intelligence, IJCAI 2022*.

SELECTED PRESENTATIONS

- **ASP-Based System for Collective Entity Resolution**. Invited Talk at Potsdam Uni. KRR Seminar, Mar. 2026 [🌐]
- **Advances in Logic-Based Entity Resolution: Enhancing ASPEN with Local Merges and Optimality Criteria**. Conference Talk. KR 2025, Melbourne, Australia. Nov. 2025 [🌐]
- **Learning Rules for Entity Resolution: A Refinement Operator-based Approach**. Workshop Talk. 第6回杉山CRESTミーティング, Kyoto Uni., Japan. Mar. 2025 [🌐]
- **ASPEN: ASP-Based System for Collective Entity Resolution**. Conference Talk, KR 2024, Hanoi Nov. 2024 [🌐]
- **Artificial Intelligence Approaches Towards Structured Data Cleaning**. Guest Tutorial, Data Science, Escuela Superior Politécnica del Litoral. Oct. 2022
- **Type-aware Embeddings for Multi-Hop Reasoning over Knowledge Graphs**. Conference Talk, IJCAI 2022, Vienna July. 2022 [🌐]

TEACHING EXPERIENCE

- **Knowledge Representation (MSc)** Autumn 2023, 2025
Teaching Assistant Cardiff Uni.
 - **Contents:** Propositional/First-order/Description Logic, Nonmonotonic Reasoning, Belief Revision
- **Principle of Machine Learning (MSc)** Autumn 2023
Teaching Assistant Cardiff Uni.
 - **Contents:** PAC Learning Theory, Machine Learning Algorithms

SERVICES

- **KR2026 Learning and Explanation Track**. Reviewer, Mar. 2026
- **Joint Workshop on XLoKR & ExCoS (Co-located with FLOC2026)**, PC Member, 2026
- **Machine Learning Journal (MLJ)**. Reviewer 2024
- **ACM Transactions on Knowledge Discovery from Data**. Reviewer 2023

REFERENCES

1. **Yazmín Ibáñez-García**
Lecturer School of Computer Science and Informatics, Cardiff Uni.
Email: ibanezgarcia@cardiff.ac.uk
Relationship: Supervisor
2. **Víctor Gutiérrez-Basulto**
Research Director
School of Computer Science and Informatics, Cardiff Uni.
Email: GutierrezBasultoV@cardiff.ac.uk
Relationship: Supervisor
3. **Meghyn Bienvenu**
Directrice de Recherche
LaBRI, Uni. of Bordeaux
Email: meghyn.bienvenu@labri.fr
Relationship: Thesis Advisor