

# Zhiliang (Leon) Xiang

PHD STUDENT · SCHOOL OF COMPUTER SCIENCE AND INFORMATICS

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

✉ xiangz6@cardiff.ac.uk | 🏠 zl-xiang.github.io | 🐦 @Mexicer

## Education

---

### Cardiff University

Cardiff, Wales, United Kingdom

PHD PROJECT: LOGIC-BASED SYSTEM TO COLLECTIVE ENTITY RESOLUTION

Jan 2023 - Present

- Supervisor: Yazmín Ibáñez-García, Víctor Gutiérrez-Basulto
- Advised by: Meghyn Bienvenu, Gianluca Cima

### Cardiff University

Cardiff, Wales, United Kingdom

M.Sc. ADVANCED COMPUTER SCIENCE WITH DISTINCTION

Oct 2020 - Oct 2022

- Dissertation: Neuro-symbolic approaches for Abstract and Relational Visual Reasoning Tasks
- Supervisor: Dr Víctor Gutiérrez-Basulto

### Guangxi University of Science and Technology

Guangxi, China

B.Sc. IN INFORMATION AND COMPUTATION SCIENCE

Sept 2011 - Sept 2015

## Internship/Research Visit

---

### RATIO Group, LaBRI, Université de Bordeaux

Bordeaux, France

TOPIC: (PROVISONAL) CERTAIN/BRAVE SOLUTIONS FOR LOGIC-BASED ENTITY RESOLUTION

Mar. 2026 - June 2026

- Supervisor: Meghyn Bienvenu

### Inoue Laboratory, NII

Tokyo, Japan

TOPIC: LEARNING RULES FOR ENTITY RESOLUTION

Sept. 2024 - Mar. 2025

- Supervisor: Katsumi Inoue

### Centre for Artificial Intelligence, Robotics and Human-Machine Systems (IROHMS)

Cardiff, United Kingdom

TOPIC: ENTITY RESOLUTION VIA ANSWER SET PROGRAMMING

Sept. 2021 - Dec. 2022

- Supervisor: Víctor Gutiérrez-Basulto

## Projects

---

2023-  
Current

**Intelligent Handling of Imperfect Data (ANR Chair in AI)**, with the LaBRI, Université de Bordeaux (Participant).

2021-2025

**Embedding Methods to Complex Logical Query Answering on Knowledge Graph**, with Uni. of Edinburgh and Shanxi Uni. (Participant).

2021-2022

**The OECD's Artificial Intelligence and the Future of Skills (AIFS)**, with Uni. of Leeds & VRain, UPV (Participant).

## Grants

---

2023

**COMSC PhD Scholarship 2023 with Oversea Student Fee Waiver (£22,700\*3) + Stipend**, COMSC, Cardiff University

2022

**EDBT-INTENDED School on Data and Knowledge Student Grant**, CNRS & University of Bordeaux

## Selected Publications

---

**Zhiliang Xiang**, Meghyn Bienvenu, Gianluca Cima, Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García: *Advances in Logic-Based Entity Resolution: Enhancing ASPEN with Local Merges and Optimality Criteria*. KR 2025

Meghyn Bienvenu , Gianluca Cima , Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García, **Zhiliang Xiang**: *Recent Advances in Logic-Based Entity Resolution*. ACM SIGMOD Record, Database Principles Column, Vol. 54, No. 3

**Zhiliang Xiang**, Meghyn Bienvenu , Gianluca Cima , Víctor Gutiérrez-Basulto, Yazmín Ibáñez-García: *ASPEN: ASP-Based System for Collective Entity Resolution*. KR 2024

Zhiwei Hu, Víctor Gutiérrez-Basulto, **Zhiliang Xiang**, Ru Li, Jeff Z. Pan: *HyperFormer: Enhancing Entity and Relation Interaction for Hyper-Relational Knowledge Graph Completion*. CIKM 2023: abs/2308.06512

Zhiwei Hu, Víctor Gutiérrez-Basulto, **Zhiliang Xiang**, Xiaoli Li, Ru Li, Jeff Z. Pan: *Type-aware Embeddings for Multi-Hop Reasoning over Knowledge Graphs*. IJCAI 2022: 3078-3084

## Presentations

---

Nov. 2025. **Advances in Logic-Based Entity Resolution: Enhancing ASPEN with Local Merges and Optimality Criteria.** Presented at KR 2025, Melbourne, Australia.

Mar. 2025. **Learning Rules for Entity Resolution: A Refinement Operator-based Approach.** Presented at the 第6回杉山CRESTミーティング, Kyoto, Japan.

Dec. 2024. **ASP-based Entity Resolution: Alternative Optimality and Local Semantics.** Presented at the 3rd NII Collaborative Workshop, Takamatsu, Japan.

Nov. 2024. **ASPEN: ASP-Based System for Collective Entity Resolution.** Presented at KR 2024, Hanoi, Vietnam.

Oct. 2024. **ASPEN: ASP-Based System for Collective Entity Resolution.** Presented at the 2nd NII Collaborative Workshop, Nagoya, Japan.

Mar. 2023. **On the Implementation of LACE Framework.** Presented at the INTENDED Plenary Meeting, the LaBRI at Uni. of Bordeaux.

Autumn 2022. **Artificial Intelligence Approaches Towards Structured Data Cleaning** . Guest Tutorial, Data Science, Escuela Superior Politécnica del Litoral.

July 2022. **Type-aware Embeddings for Multi-Hop Reasoning over Knowledge Graphs.** Presentation at IJCAI-ECAI-2022, Vienna, Austria.

## Teaching Experience

---

Autumn 2023, 2025	<b>Knowledge Representation (MSc)</b> , Teaching Assistant	<i>Cardiff Uni.</i>
Autumn 2023	<b>Principle of Machine Learning (MSc)</b> , Teaching Assistant	<i>Cardiff Uni.</i>

## Service

---

**ACM Transactions on Knowledge Discovery from Data 2023**, Reviewer

**Machine Learning Journal 2024**, Reviewer

## Professional Experience

---

2018-2020 **Web GIS Development Engineer** , Nanning Information Centre of Natural Resources

2017-2018 **BIM System Product Manager**, Shanghai Tongzhu Inc. with Tongji University

2015-2017 **Web Service Engineer**, ePaylinks Co., Ltd.