

Zhiliang (Leon) Xiang

PHD STUDENT · SCHOOL OF COMPUTER SCIENCE AND INFORMATICS

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Education

Cardiff University

Cardiff, Wales, United Kingdom

PHD: LOGIC-BASED AND NEURAL APPROACHES FOR STRUCTURED DATA CLEANING

Jan 2023 - Present

- Principal Advisor: Dr Yasmín Ibáñez-García, Dr Víctor Gutiérrez-Basulto
- Co-advisor: Prof Meghyn Bienvenu, Dr 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
- Advisor: Dr Víctor Gutiérrez-Basulto

Guangxi University of Science and Technology

Guangxi, China

B.SC. IN INFORMATION AND COMPUTATION SCIENCE

Sept 2011 - Sept 2015

- Mathematics: Analysis, Algebra, Discrete Math, Probability, Statistics
- Programming: C++/Java Programming, Data Structure, DB Management
- Computation: Optimisation, Data Mining, Computational Intelligence

Publications

PUBLISHED

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

Zhiwei Hu, Víctor Gutiérrez-Basulto, **Zhiliang Xiang**, Ru Li, Jeff Z. Pan: **Transformer-based Entity Typing in Knowledge Graphs**. EMNLP 2022: 5988-6001

Anthony G. Cohn, José Hernández-Orallo, Julius Sechang Mboli, Yael Moros-Daval, **Zhiliang Xiang**, Lexin Zhou: **A Framework for Categorising AI Evaluation Instruments**. EBeM@IJCAI 2022

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

Projects

- | | |
|------------------|---|
| 2023-
Current | Intelligent Handling of Imperfect Data (ANR Chair in AI) , With the LaBRI, Université de Bordeaux |
| 2021-
Current | Embedding Methods to Complex Logical Query Answering on Knowledge Graph , With Uni. of Edinburgh and Shanxi Uni. |
| 2021-2022 | Declarative Entity Resolution via Answer Set Programming , With the LaBRI, Université de Bordeaux |
| 2021-2022 | The OECD's Artificial Intelligence and the Future of Skills (AIFS) , With Uni. of Leeds & VRAIN, UPV |

Grants

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

Presentations

Spring 2023. **On the Implementation of LACE Framework**. 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.

Summer 2022. **Type-aware Embeddings for Multi-Hop Reasoning over Knowledge Graphs**. Invited talk: IJCAI-ECAI-2022 Presented At, Vienna, Austria.

Teaching Experience

Autumn 2023 **Knowledge Representation (MSc)**, Demonstrator *Cardiff Uni.*

Autumn 2023 **Principle of Machine Learning (MSc)**, Demonstrator *Cardiff Uni.*

Outreach Development

SUMMER SCHOOLS

2022 **The 5th Summer School on Argumentation**, Cardiff Uni.

2022 **EDBT-INTENDED Summer School**, the LaBRI, Uni. of Bordeaux

2021 **Reasoning Web Summer School**, Online

RESEARCH INTERN/PLACEMENT

Oct 2021 - Dec 2022. **Research Assistant**, at the Centre for Artificial Intelligence, Robotics and Human-Machine Systems (IROHMS)

PEER REVIEW

ACM Transactions on Knowledge Discovery from Data, 2023

RESEARCH GROUP MEMBERSHIPS

Cardiff KRR Research Group

Cardiff NLP Research Group

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