

Jiaoyan Chen, Mr.

phone: +44 7513502127

Email: jiaoyan4ai@gmail.com

Home page: <https://chenjiaoyan.github.io/>

Education

09/2011 – 09/2016: Ph.D., Computer Science and Technology, Zhejiang University, China, Co-supervised by Prof. Zhaohui Wu and Prof. Huajun Chen.

07/2016 – 09/2016 & 11/2014 – 06/2015: Visiting Ph.D. Student, Department of Informatics, Zurich University, Switzerland, supervised by Prof. Daning Hu.

08/2007 – 06/2011: Bachelor, Computer Science and Technology, Zhejiang University, China.

Positions

11/2022 – now: Lecturer (research and teaching / permanent) in Data Intensive Systems in Department of Computer Science, The University of Manchester, Manchester, UK.

11/2022 – now: Senior Researcher (part-time) in Department of Computer Science, University of Oxford, Oxford, UK (report to Prof. Ian Horrocks).

11/2017 – 10/2022: Senior Researcher in Department of Computer Science, University of Oxford, Oxford, UK (report to Prof. Ian Horrocks).

03/2020 – 02/2021: Technical consultant of Jarvis Lab of Tencent Technology, Shenzhen, China.

12/2019 – 02/2020: Technical consultant of Oxford Semantic Technology, Oxford, UK.

10/2016 – 09/2017: Postdoctoral Researcher in GIScience Research Group in Heidelberg University, Heidelberg, Germany (report to Prof. Alexander Zipf).

Research Interests

My research interests focus on:

- **Neural-symbolic Knowledge Representation and Reasoning:** the embedding, inference, construction and curation of knowledge graphs and OWL ontologies.
- **Language Model and Data Intensive Systems:** augmenting large language models (LLMs) with knowledge graphs, ontologies and data lakes; retrieval augmented generation (RAG); natural language inference.
- **Machine Learning:** knowledge-aware zero-shot, few-shot and transfer learning; knowledge graph and ontology embedding.

Research Grants and Projects

- The Manchester-Melbourne-Toronto (MMT) Research Fund, "AI-Driven Solutions for Child Protection: Utilizing LLMs and Knowledge Graph" (collaborative research initiatives), 9K GBP + 14K CAD, 10/2024 - 03/2026, PI with Jia Xue from University of Toronto.
- Turing Innovation Catalyst Manchester (TICM) funded Collaborative R&D Project "Multi-modal Semantic Search with Ontologies and Modern AI Techniques", 30.6K GBP, 07/2024 - 01/2025, PI.
- EPSRC New Investigator Award "OntoEm: Semantic Embeddings for Ontologies" (EP/Y017706/1), 427.9K GBP, 05/2024 – 04/2027, PI.
- EPSRC project "ConCur: Knowledge Graph Construction and Curation" (EP/V050869/1), 1.1M GBP, 12/2021 - 11/2024, Research Co-Investigator.

- Turing-Manchester Feasibility Project "Knowledge Graph for Explainability, Guidance and Human-in-the-loop in Machine Learning", 19K GBP, 11/2022 - 04/2023, PI.
- I'm also working on the e-commerce taxonomy curation projection funded by eBay in University of Oxford. I have finished working for several knowledge graph related projects such as the AIDA project of the Alan Turing Institute, and the knowledge graph construction project funded by Samsung Research UK.

Recent Invited Talks and Tutorials

- "Knowledge Engineering meets (Large) Language Models". Amazon Scholar Report. 12/07/2024. Online.
- "Neural-symbolic Knowledge Representation with Ontology and Knowledge Graph Embeddings". King Abdullah University of Science and Technology. 22/04/2024.
- "Ontology Construction and Curation with (Large) Language Model". Talk in 7th meetup of the Knowledge Graph Group of The Alan Turing Institute. 18/09/2023.
- "Knowledge-aware Zero-shot Learning (K-ZSL): Concepts, Methods and Resources". Tutorials in ISWC 2022 and IJCAI 2023.
- "Knowledge Graph Construction, Curation and Its Machine Learning Applications". Shanghai Jiaotong University. Shanghai, China. 19/05/2023.
- "Knowledge-driven Zero-shot Learning". Conference on "Data Intelligence and Knowledge Service" organized by the Data Intelligence journal. Naging, China (Hybrid). 07/2021.
- "Knowledge Graphs: Theory & Applications". eBay, California, USA. 09/2021.
- "Knowledge Graph Curation with Deep Learning and Semantic Reasoning". Tencent Technology, Shenzhen, China, 10/2019.
- "Knowledge Graph Curation with Deep Learning". Southeast University, Nanjing, China, 08/2019.

Research Students / Associates (Team)

- Hui Yang (Postdoctoral, Department of Computer Science, The University of Manchester, 06/2024 - now).
- Hanhua Hong (PhD, Department of Computer Science, The University of Manchester, 09/2024 – now).
- Ian Hyland (PhD, Department of Computer Science, The University of Manchester, 04/2024 -)
- Yiping Song (Department of Computer Science, The University of Manchester, 04/2024 -)
- Tianzhe Zhao (Visiting PhD student from Xi'an Jiaotong University, 01/2024 - 12/2025)
- Zhenyu Wu (Department of Computer Science, The University of Manchester, 11/2022 -)
- Jingchuan Shi (Department of Computer Science, University of Oxford, 2021 -).

(past)

- Yuan He (Department of Computer Science, University of Oxford, 2020 - 2024).
- Yuxia Geng (College of Computer Science and Technology, Zhejiang University. 2018 – 2023) (external co-supervisor).
- Erik Bryhn Myklebust (NIVA & SIRIUS, University of OSLO. 2019 – 2022) (external co-supervisor).
- Mathias Jackermeier (MSc in Department of Computer Science, University of Oxford, 2022)
- Yan Zhou (MSc in GIScience, University of Heidelberg, 2016 – 2017)

Academic Services

- Member of the EPSRC Peer Review College. 2023 – now.

- Senior Editorial Board of Transactions of Graph Data and Knowledge. 2023 – now.
- Editorial Board of Journal of Web Semantics. 2020 – 2023.
- Conference Senior PC: IJCAI'20, IJCAI'21, CIKM'23, ESWC'23
- Conference PC: ISWC'2017, WWW'2017, AAAI'17, ISWC'18, IJCAI'19, ISWC'19, WWW'19, ISWC'20, AAAI'20, ECAI'20, ACL'20, ECML-PKDD'20, WWW'20, AAAI'21, ECML-PKDD'21, CIKM'21, CCKS'21 (**best reviewer**), ESWC'22, ECML-PKDD'22, WWW'22, AAAI'22, IJCAI'22, EMNLP'22, ISWC'22, ACL'22, OM'23, AAAI'23, IJCAI'23, ISWC'23, EMNLP'23, NeSy'23, CCKS'23, VLDB TaDA'23, AAAI'24, WWW'24, NeSy'24, ICDE'24, WWW PromptEng'24, IJCAR'24, OM'24, ISWC'24, VLDB TaDA'24, IJCAI LKM'24, VLDB LLM+KG'24, COLM'24, etc.
- Journal reviewer: Semantic Web, Journal of Web Semantics, ACM Transactions on the Web, Knowledge-based Systems, World Wide Web, Neurosymbolic Artificial Intelligence, Journal of Biomedical Semantics, Big Data Research, Journal of Automated Reasoning, etc.
- Co-organiser: [SemTab](#): Semantic Web Challenge on Tabular Data to Knowledge Graph Matching. Yearly challenge in ISWC (from 2019 to 2023).
- Co-organiser: Ontology Alignment Evaluation Initiative (OAEI), for the track of “Bio-ML: A ML-friendly Biomedical track for Equivalence and Subsumption Matching”. Yearly event in ISWC (from 2022 to 2023).

Research Student Examination

- Yifan Xu. PhD Thesis. Department of Computer Science, The University of Manchester. 08/2024
- Fangrong Wang. PhD Thesis. School of Informatics, The University of Edinburgh. 01/2024.
- Nanadi Mardah. PhD Thesis. Department of Computer Science, The University of Manchester. 10/2023.
- Peyman Rasouli. PhD Thesis. Department of Informatics, University of Oslo. 04/2023.

Teaching

- Neural-symbolic Knowledge Representation and Reasoning. 2nd European Summer School on Artificial Intelligence (ESSAI 2024). Lecturer. July 2024.
- Data Engineering (COMP60711). Department of Computer Science, The University of Manchester. Lecturer. The first semester of 2024 – 2025.
- Querying Data on the Web (COMP62421). Department of Computer Science, The University of Manchester. Lecturer. The first semester of 2023 – 2024.
- Artificial Intelligence. Department of Computer Science, University of Oxford. Group Class Teaching. Hilary Term, 2022.
- Knowledge Graph (English). Southeast University. Guest Lecturer. Summer of 2023.
- Knowledge Representation and Reasoning (English). Southeast University. Guest Lecture. The first semester of 2021-2022 and 2022-2023.
- Augmenting Machine Learning with Knowledge Base. University of Aberdeen. Guest Lecture to the course of CS551J Knowledge Representation and Reasoning. 2018.

Knowledge and Technology Transfer, Outreach and Public Engagement

- Member of AMS Network on Neurosymbolic AI for Medicine. 2024 – 2025.
- PI of the R&D project “Multi-modal Semantic Search with Ontologies and Modern AI Techniques” funded by Turing Innovation Catalyst Manchester (TICM), for knowledge transfer to a start-up company named Mindcubes.
- Main organizer of the Turing-Manchester Feasibility Project meeting on explainability, AI and healthcare, with NHS researchers and Manchester Business School. 04/2023.
- Member of the Data Science Program of the SIRIUS Centre for Scalable Data Access in Norway. 11/2017 – 08/2023.

- Enterprise Fellow, MPLS, University of Oxford. 2019 – 2020.
- Organization of MPLS Enterprise Fellow's Entrepreneurship Summit, University of Oxford. 03/11/2020.
- Member of Future SOC Lab by Hasso Plattner Institute in Germany. 2017.
- Volunteer of humanitarian mapping events organized in Heidelberg University, for doctors of International Red Cross in Africa. 2016 – 2017.

Publications

By 08/2024, I have published over 90 peer-reviewed conference and journal papers (28 as the first author), and have 33 h-index and over 3400 citations according to Google Scholar. See [Google Scholar](#) for the complete list.

Peer Reviewed Journal Papers (selected)

- Jiaoyan Chen, Olga Mashkova, Fernando Zhapa-Camacho, Robert Hoehndorf, Yuan He, Ian Horrocks. "Ontology Embedding: A Survey of Methods, Applications and Resources". Under work.
- Jingyi Qiu, Aibo Song, Jiahui Jin, *Jiaoyan Chen*, Xinyu Zhang, Xiaolin Fang, Tianbo Zhang. "Matching Tabular Data to Knowledge Graph with Effective Core Column Set Discovery". ACM Transactions on the Web. 2024. (accepted)
- Wen Zhang, Yajing Xu, Peng Ye, Zhiwei Huang, Zezhong Xu, *Jiaoyan Chen*, Jeff Z Pan, Huajun Chen. "Start From Zero: Triple Set Prediction for Automatic Knowledge Graph Completion". IEEE Transactions on Knowledge and Data Engineering, 2024.
- Lingbing Guo, Zhuo Chen, *Jiaoyan Chen*, Yichi Zhang, Zequn Sun, Zhongpu Bo, Yin Fang, Xiaoze Liu, Huajun Chen, Wen Zhang. "Distributed representations of entities in open-world knowledge graphs". Knowledge-Based Systems. Volume 290, Page 111582, 2024.
- Yuan He, *Jiaoyan Chen*, Hang Dong, Ian Horrocks, Carlo Allocca, Taehun Kim, Brahmananda Sapkota. "DeepOnto: A Python Package for Ontology Engineering with Deep Learning". Semantic Web Journal, 2024.
- Jiaoyan Chen, Hang Dong, Janna Hastings, Ernesto Jiménez-Ruiz, Vanessa Lopez, Pierre Monnin, Catia Pesquita, Petr Škoda, Valentina Tamma. "Knowledge Graphs for the Life Sciences: Recent Developments, Challenges and Opportunities". Transactions on Graph Data and Knowledge. Volume 1, Issue 1, 2023.
- Norman Paton, *Jiaoyan Chen*, Zhenyu Wu. "Dataset Discovery and Exploration: A Survey". ACM Computing Surveys (2023).
- *Jiaoyan Chen*, Yuxia Geng, Zhuo Chen, Jeff Z. Pan, Yuan He, Wen Zhang, Ian Horrocks and Huajun Chen. "Zero-shot and Few-shot Learning with Knowledge Graphs: A Comprehensive Survey". Proceedings of the IEEE (2023).
- *Jiaoyan Chen*, Yuan He, Yuxia Geng, Ernesto Jimenez-Ruiz, Hang Dong, Ian Horrocks. "Contextual Semantic Embeddings for Ontology Subsumption Prediction". World Wide Web Journal (2023): 1-23.
- Li, Yangning, *Jiaoyan Chen*, Yinghui Li, Tianyu Yu, Xi Chen, and Hai-Tao Zheng. "Embracing ambiguity: Improving similarity-oriented tasks with contextual synonym knowledge." Neurocomputing 555 (2023): 126583.
- Yuxia Geng, *Jiaoyan Chen*, Xiang Zhuang, Zhuo Chen, Jeff Z. Pan, Juan Li, Zonggan Yuan and Huajun Chen. "Benchmarking Knowledge-driven Zero-shot Learning". Journal of Web Semantics 75 (2023): 100757.
- *Jiaoyan Chen*, Ernesto Jimenez-Ruiz, Ian Horrocks, Xi Chen and Erik B. Myklebust. "An assertion and alignment correction framework for large scale knowledge bases", Semantic Web, vol. 14, no. 1, pp. 29-53, 2023.

- Hang Dong, Matúš Falis, William Whiteley, Beatrice Alex, Joshua Matterson, Shaoxiong Ji, *Jiaoyan Chen*, Honghan Wu. "Automated clinical coding: what, why, and where we are?". NPJ Digital Medicine 5.1 (2022): 159.
- Erik B. Myklebust, Ernesto Jiménez-Ruiz, *Jiaoyan Chen*, Raoul Wolf, Knut Erik Tollefsen. "Prediction of adverse biological effects of chemicals using knowledge graph embeddings." Semantic Web, vol. 13, no. 3, pp. 299-338, 2022.
- *Jiaoyan Chen*, Pan Hu, Ernesto Jimenez-Ruiz, Ole Magnus Holter, Denvar Antonyrajah and Ian Horrocks. "OWL2Vec*: Embedding of OWL Ontologies". Machine Learning 110.7 (2021): 1813-1845.
- Yuxia Geng, *Jiaoyan Chen*, Zhiquan Ye, Wei Zhang and Huajun Chen. "Explainable Zero-shot Learning via Attentive Graph Convolutional Network and Knowledge Graphs" Semantic Web 12.5 (2021): 741-765. Paper
- *Jiaoyan Chen*, Freddy Lecue, Jeff Z. Pan, Shumin Deng, Huajun Chen. "Knowledge Graph Embeddings for Dealing with Concept Drift in Machine Learning". Journal of Web Semantics 67 (2021): 100625. Paper
- *Jiaoyan Chen*, Yan Zhou, Alexander Zipf and Hongchao Fan. "Deep Learning from Multiple Crowds: A Case Study of Humanitarian Mapping." IEEE Transactions on Geoscience and Remote Sensing 57 (3), 1713-1722, 2018.
- *Jiaoyan Chen*, Huajun Chen, Zhaohui Wu, Daning Hu, and Jeff Z. Pan. "Forecasting smog-related health hazard based on social media and physical sensor." Information Systems 64 (2017): 281-291.
- *Jiaoyan Chen*, Huajun Chen, Xiangyi Wan, Guozhou Zheng. "MR-ELM: a MapReduce-based framework for large-scale ELM training in big data era." Neural Computing and Applications 27 (2016): 101-110.
- *Jiaoyan Chen*, Guozhou Zheng, Cong Fang, Ningyu Zhang, Huajun Chen, Zhaohui Wu. "Time-series processing of large scale remote sensing data with extreme learning machine." Neurocomputing 128 (2014): 199-206.

Peer Reviewed Conference Papers (selected)

- Dehai Min, Nan Hu, Rihui Jin, Nuo Lin, *Jiaoyan Chen*, Yongrui Chen, Yu Li, Guilin Qi, Yun Li, Nijun Li, Qianren Wang. "Exploring the Impact of Table-to-Text Methods on Augmenting LLM-based Question Answering with Domain Hybrid Data". NAACL 2024 (Industry Track).
- Tianzhe Zhao, *Jiaoyan Chen*, Yanchi Ru, Qika Lin, Yuxia Geng and Jun Liu. "Untargeted Adversarial Attack on Knowledge Graph Embeddings". SIGIR 2024.
- Lingbing Guo, Zhuo Chen, *Jiaoyan Chen*, Qiang Zhang, Huajun Chen. "DET: A Dual-Encoding Transformer for Relational Graph Embedding". COLING 2024.
- Hang Dong, *Jiaoyan Chen*, Yuan He, Yongsheng Gao, Ian Horrocks. "A Language Model based Framework for New Concept Placement in Ontologies". ESWC 2024.
- Mathias Jackermeier, *Jiaoyan Chen*, Ian Horrocks. "Dual Box Embeddings for the Description Logic EL++". The Web Conference 2024.
- Jingchuan Shi, Hang Dong, *Jiaoyan Chen*, Zhe Wu, Ian Horrocks. "Taxonomy Completion via Implicit Concept Insertion". The Web Conference 2024.
- Lingbing Guo, Zhuo Chen, *Jiaoyan Chen*, Wen Zhang, Huajun Chen. "Revisit and Outstrip Entity Alignment: A Perspective of Generative Models". ICLR 2024
- Yong Guan, Freddy Lecue, *Jiaoyan Chen*, Ru Li, Jeff Z Pan. "Explaining Image Classification through Knowledge-aware Neuron Interpretation". AAAI 2024.
- Hang Dong, *Jiaoyan Chen*, Yuan He, Ian Horrocks. "Ontology Enrichment from Texts: A Biomedical Dataset for Concept Discovery and Placement". CIKM 2023 (**Best Resource Paper Runner-up**).

- Hang Dong, *Jiaoyan Chen*, Yuan He, Yinan Liu, Ian Horrocks. "Reveal the Unknown: Out-of-Knowledge-Base Mention Discovery with Entity Linking Authors". CIKM 2023.
- Zhuo Chen, Lingbing Guo, Yin Fang, Yichi Zhang, *Jiaoyan Chen*, Jeff Z Pan, Yangning Li, Huajun Chen, Wen Zhang. "Rethinking Uncertainly Missing and Ambiguous Visual Modality in Multi-Modal Entity Alignment". ISWC 2023 (**Best Paper Nominee**).
- Zhuo Chen, *Jiaoyan Chen*, Lingbing Guo, Yin Fang, Yufeng Huang, Yuxia Geng, Jeff Z Pan, Wenting Song, Huajun Chen. "MEAformer: Multi-modal Entity Alignment Transformer for Meta Modality Hybrid". ACM Multimedia 2023.
- Yong Guan, *Jiaoyan Chen*, Freddy Lecue, Jeff Pan, Juanzi Li, Ru Li. "Trigger-Argument based Explanation for Event Detection". Findings of ACL 2023.
- Yuan He, *Jiaoyan Chen*, Ernesto Jimenez-Ruiz, Hang Dong, Ian Horrocks. "Language Model Analysis for Ontology Subsumption Inference". Findings of ACL 2023. Paper, Github
- Jingchuan Shi, *Jiaoyan Chen*, Hang Dong, Ishita Khan, Lizzie Liang, Qunzhi Zhou, Zhe Wu, Ian Horrocks. "Subsumption prediction on e-commerce taxonomies". ESWC 2023.
- Yangning Li, *Jiaoyan Chen*, Yinghui Li, Yuejia Xiang, Xi Chen, Hai-Tao Zheng. "Vision, Deduction and Alignment: An Empirical Study on Multi-modal Knowledge Graph Alignment". ICASSP 2023.
- Zhuo Chen, Yufeng Huang, *Jiaoyan Chen*, Yuxia Geng, Wen Zhang, Yin Fang, Jeff Z Pan, Wenting Song, Huajun Chen. "DUET: Cross-modal Semantic Grounding for Contrastive Zero-shot Learning". AAAI 2023.
- Yuxia Geng, *Jiaoyan Chen*, Wen Zhang, Jeff Z. Pan, Mingyang Chen, Huajun Chen, Song Jiang. "Relational Message Passing for Fully Inductive Knowledge Graph Completion". ICDE 2023.
- Yuxia Geng, *Jiaoyan Chen*, Wen Zhang, Yajing Xu, Zhuo Chen, Jeff Z. Pan, Yufeng Huang, Feiyu Xiong, Huajun Chen. "Disentangled Ontology Embedding for Zero-shot Learning". KDD 2022.
- Yuan He, *Jiaoyan Chen*, Hang Dong, Ernesto Jimenez-Ruiz, Ali Hadian and Ian Horrocks. "Machine Learning-Friendly Biomedical Datasets for Equivalence and Subsumption Ontology Matching". ISWC 2022 (**Best Resource Paper Nominee**).
- Zhuo Chen, Yufeng Huang, *Jiaoyan Chen*, Yuxia Geng, Yin Fang, Jeff Z. Pan, Ningyu Zhang, Wen Zhang. "LaKo: Knowledge-driven Visual Question Answering via Late Knowledge-to-Text Injection". IJCKG 2022 (**Best Application Paper**).
- Yuan He, *Jiaoyan Chen*, Denvar Antonyrajah and Ian Horrocks. "BERTMap: A BERT-based Ontology Alignment System". AAAI 2022.
- Zhiyuan Qi, Ziheng Zhang, *Jiaoyan Chen*, Xi Chen, Yefeng Zheng. "PRASEMap: A Probabilistic Reasoning and Semantic Embedding based Knowledge Graph Alignment System". CIKM 2021 (Demo).
- Zhuo Chen, *Jiaoyan Chen*, Yuxia Geng, Jeff Z. Pan, Zonggan Yuan and Huajun Chen. "Zero-shot Visual Question Answering using Knowledge Graphs", ISWC 2021.
- *Jiaoyan Chen*, Yuxia Geng, Zhuo Chen, Ian Horrocks, Jeff Z. Pan and Huajun Chen. "Knowledge-aware Zero-shot Learning: Survey and Perspective". IJCAI 2021.
- Zhiyuan Qi, Ziheng Zhang, *Jiaoyan Chen*, Xi Chen, Yuejia Xiang, Ningyu Zhang, Yefeng Zheng. "Unsupervised Knowledge Graph Alignment by Probabilistic Reasoning and Semantic Embedding". IJCAI 2021.
- Yuejia Xiang, Ziheng Zhang, *Jiaoyan Chen*, Xi Chen, Zhenxi Lin and Yefeng Zheng. "OntoEA: Ontology-guided Entity Alignment via Joint Knowledge Graph Embedding". Findings of ACL 2021.
- *Jiaoyan Chen*, Ernesto Jimenez-Ruiz, Ian Horrocks, Denvar Antonyrajah, Ali Hadian and Jaehun Lee. "Augmenting Ontology Alignment by Semantic Embedding and Distant Supervision". ESWC 2021 (**Best Paper Nominee**).

- Yuxia Geng, *Jiaoyan Chen*, Zhuo Chen, Jeff Z. Pan, etc. "OntoZSL: Ontology-enhanced Zero-shot Learning". The Web Conference (WWW) 2021.
- Ziheng Zhang, *Jiaoyan Chen*, Xi Chen, Hualuo Liu, Yuejia Xiang, Bo Liu and Yefeng Zhang. "An Industry Evaluation of Embedding-based Entity Alignment". The 28th International Conference on Computational Linguistics (COLING) 2020.
- *Jiaoyan Chen*, Freddy Lecue, Yuxia Geng, Jeff Z. Pan and Huajun Chen. "Ontology-guided Semantic Composition for Zero-Shot Learning", KR 2020.
- Ernesto Jimenez-Ruiz, Oktie Hassanzadeh, Vasilis Efthymiou, *Jiaoyan Chen* and Kavitha Srinivas. "SemTab 2019: Resources to Benchmark Tabular Data to Knowledge Graph Matching Systems." ESWC 2020.
- *Jiaoyan Chen*, Xi Chen, Ian Horrocks, Ernesto Jimenez-Ruiz and Erik B. Myklebus. "Correcting Knowledge Base Assertions." The Web Conference (WWW) 2020.
- Ernesto Jimenez-Ruiz, Asan Agibetov, *Jiaoyan Chen*, Matthias Samwald and Valerie Cross. "Dividing the Ontology Alignment Task with Semantic Embeddings and Logic-based Modules." the 24th European Conference on Artificial Intelligence (ECAI) 2020.
- *Jiaoyan Chen*, Ernesto Jimenez-Ruiz and Ian Horrocks. "Canonicalizing Knowledge Base Literals." International Semantic Web Conference (ISWC) 2019.
- Erik B. Myklebust, Ernesto Jimenez-Ruiz, *Jiaoyan Chen*, Raoul Wolf, Knut Erik Tollefsen. "Knowledge Graph Embedding for Ecotoxicological Effect Prediction." International Semantic Web Conference (ISWC) 2019. **Best Student Paper**.
- *Jiaoyan Chen*, Ernesto Jimenez-Ruiz, Ian Horrocks, and Charles Sutton. "Learning Semantic Annotations for Tabular Data." IJCAI 2019.
- *Jiaoyan Chen*, Ernesto Jimenez-Ruiz, Ian Horrocks, and Charles Sutton. "ColNet: Embedding the Semantics of Web Tables for Column Type Prediction." AAAI 2019.
- Wen Zhang, Bibek Paudel, Liang Wang, *Jiaoyan Chen*, Hai Zhu, Wei Zhang, Abraham Bernstein, Huajun Chen. "Iteratively Learning Embeddings and Rules for Knowledge Graph Reasoning." The Web Conference (WWW) 2019.
- *Jiaoyan Chen*, Freddy Lecue, Jeff Z. Pan, Ian Horrocks, and Huajun Chen. "Knowledge-based Transfer Learning Explanation." KR 2018.
- *Jiaoyan Chen*, Freddy Lecue, Jeff Z. Pan, and Huajun Chen. "Learning from ontology streams with semantic concept drift." IJCAI 2017.
- *Jiaoyan Chen*, Huajun Chen, Daning Hu, Jeff Z. Pan, Yalin Zhou. "Smog Disaster Forecasting using Social Web Data and Physical Sensor Data." IEEE Big Data 2015.
- *Jiaoyan Chen*, Huajun Chen, Guozhou Zheng, Jeff Z. Pan, Honghan Wu and Ningyu Zhang. "Big smog meets web science: smog disaster analysis based on social media and device data on the web." WWW 2014.