List of Publications

Michael Cochez

September 23, 2022

A bibtex file with all my work can be found from https://www.cochez.nl/papers/refs.bib

Peer reviewed book chapters, conference and journal papers.

- 1. Ruijie Wang, Luca Rossetto, *Michael Cochez*, and Abraham Bernstein. QAGCN: A graph convolutional network-based multi-relation question answering system. In *NeurIPS 2022*, 2022a. accepted
- Xu Wang, Frank van Harmelen, Michael Cochez, editor="Memmi Gerard Huang, Zhisheng", Baijian Yang, Linghe Kong, Tianwei Zhang, and Meikang Qiu. Scientific item recommendation using a citation network. In Knowledge Science, Engineering and Management, pages 469–484, Cham, 2022b. Springer International Publishing. ISBN 978-3-031-10986-7
- 3. Taewoon Kim, Michael Cochez, Vincent Francois-Lavet, Mark Neerincx, and Piek Vossen. A machine with human-like memory systems. arXiv preprint arXiv:2204.01611, 2022. Presented at the Human-Centered Design of Symbiotic Hybrid Intelligence workshop at HHAI 2022
- 4. Daniel Daza, *Michael Cochez*, and Paul Groth. SlotGAN: Detecting mentions in text via adversarial distant learning. In *Proceedings of the Sixth Workshop on Structured Prediction for NLP*, pages 32–39, 2022
- Alessandro Generale, Till Blume, and Michael Cochez. Scaling R-GCN training with graph summarization. arXiv preprint arXiv:2203.02622, 2022. To appear in the proceedings of the ACM Digital Library in the proceedings of the International Workshop on Graph Learning at the Webconf 2022
- Simone Colombo, Dimitrios Alivanistos, and Michael Cochez. Potential energy to improve link prediction with relational graph neural networks. In AAAI Spring Symposium: MAKE, number 3121 in CEUR Workshop Proceedings, pages 1–9, 2022
- Aidan Hogan, Eva Blomqvist, Michael Cochez, Claudia d'Amato, Gerard de Melo, Claudio Gutierrez, Sabrina Kirrane, José Emilio Labra Gayo, Roberto Navigli, Sebastian Neumaier, and others. Knowledge graphs. Synthesis Lectures on Data, Semantics, and Knowledge, 12(2):1–257, 2021a. URL https://kgbook.org

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- Florian Barthelemy, Michael Cochez, Iraklis Dimitriadis, Naila Karim, Nikolaos Loutas, Ioannis Magnisalis, Lina Molinas Comet, Vassilios Peristeras, and Brecht Wyns. Towards a standard-based open data ecosystem: analysis of dcat-ap use at national and european level. Electronic Government, an International Journal, 18(2):137–180, 2022
- 10. Christopher Wewer, Florian Lemmerich, and *Michael Cochez*. Updating embeddings for dynamic knowledge graphs. arXiv preprint arXiv:2109.10896, 2021
- 11. Leandro Eichenberger, *Michael Cochez*, Benjamin Heitmann, and Stefan Decker. Secure evaluation of knowledge graph merging gain. *arXiv* preprint arXiv:2103.00082, 2021
- 12. Dimitrios Alivanistos, Max Berrendorf, *Michael Cochez*, and Mikhail Galkin. Query embedding on hyper-relational knowledge graphs. In *International Conference on Learning Representations (ICLR 2022)*. Openreview, 2022a. URL https://openreview.net/forum?id=4rLw09TgRw9
- Md. Rezaul Karim, Jiao Jiao, Till Döhmen, Michael Cochez, Oya Beyan, Dietrich Rebholz-Schuhmann, and Stefan Decker. DeepKneeExplainer: Explainable knee osteoarthritis diagnosis from radiographs and magnetic resonance imaging. IEEE Access, 9:39757–39780, 2021. doi: 10.1109/ ACCESS.2021.3062493
- 14. Arnab Chakrabarti, Abhijeet Das, Michael Cochez, and Christoph Quix. Unsupervised feature selection for efficient exploration of high dimensional data. In Ladjel Bellatreche, Marlon Dumas, Panagiotis Karras, and Raimundas Matulevičius, editors, Advances in Databases and Information Systems, pages 183–197, Cham, 2021. Springer International Publishing. ISBN 978-3-030-82472-3. URL https://www.cochez.nl/papers/feature_selection_for_exploration.pdf
- 15. Ruud van Bakel, Teodor Aleksiev, Daniel Daza, Dimitrios Alivanistos, and Michael Cochez. Approximate knowledge graph query answering: From ranking to binary classification. In Michael Cochez, Madalina Croitoru, Pierre Marquis, and Sebastian Rudolph, editors, Graph Structures for Knowledge Representation and Reasoning, pages 107–124, Cham, 2021. Springer International Publishing. ISBN 978-3-030-72308-8
- 16. Erik Arakelyan, Daniel Daza, Pasquale Minervini, and Michael Cochez. Complex query answering with neural link predictors. In International Conference on Learning Representations (ICLR 2021). Openreview, 2021. URL https://openreview.net/forum?id=Mos9F9kDwkz. Oral presentation, spotlight paper

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- Md. Rezaul Karim, Till Döhmen, Michael Cochez, Oya Beyan, Dietrich Rebholz-Schuhmann, and Stefan Decker. DeepCOVIDExplainer: Explainable COVID-19 diagnosis from chest X-ray images. In 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), pages 1034–1037, 2020b. doi: 10.1109/BIBM49941.2020.9313304. URL https: //arxiv.org/abs/2004.04582
- Aidan Hogan, Eva Blomqvist, Michael Cochez, Claudia D'amato, Gerard De Melo, Claudio Gutierrez, Sabrina Kirrane, José Emilio Labra Gayo, Roberto Navigli, Sebastian Neumaier, and others. Knowledge graphs. ACM Comput. Surv., 54(4), July 2021b. ISSN 0360-0300. doi: 10.1145/3447772. URL https://arxiv.org/abs/2003.02320
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- 21. Lars C. Gleim, Rafael Schimassek, Dominik Hüser, Maximilian Peters, Christoph Krämer, Michael Cochez, and Stefan Decker. Schematree: Maximumlikelihood property recommendation for Wikidata. In Andreas Harth, Sabrina Kirrane, Axel-Cyrille Ngonga Ngomo, Heiko Paulheim, Anisa Rula, Anna Lisa Gentile, Peter Haase, and Michael Cochez, editors, The Semantic Web, pages 179–195, Cham, 2020. Springer International Publishing. ISBN 978-3-030-49461-2
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- 28. Md. Rezaul Karim, Bharathi Raja Chakravarthi, John P. McCrae, and Michael Cochez. Classification benchmarks for under-resourced bengali language based on multichannel convolutifonal-lstm network. In 2020 IEEE 7th International Conference on Data Science and Advanced Analytics (DSAA), pages 390–399, 2020c. doi: 10.1109/DSAA49011.2020. 00053. URL https://arxiv.org/abs/2004.07807
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- 30. Svitlana Vakulenko, Javier David Fernandez Garcia, Axel Polleres, Maarten de Rijke, and Michael Cochez. Message passing for complex question answering over knowledge graphs. In Proceedings of the 28th ACM International Conference on Information and Knowledge Management, CIKM '19, page 1431–1440, New York, NY, USA, 2019. Association for Computing Machinery. ISBN 9781450369763. doi: 10.1145/3357384.3358026. URL https://doi.org/10.1145/3357384.3358026
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- 32. Ruijie Wang, Meng Wang, Jun Liu, Weitong Chen, Michael Cochez, and Stefan Decker. Leveraging knowledge graph embeddings for natural language question answering. In Guoliang Li, Jun Yang, Joao Gama, Juggapong Natwichai, and Yongxin Tong, editors, Database Systems for Advanced Applications, pages 659–675, Cham, 2019. Springer International Publishing. ISBN 978-3-030-18576-3
- 33. Michael Cochez, Martina Garofalo, Jerôme Lenßen, and Maria Angela Pellegrino. A first experiment on including text literals in kglove. arXiv preprint submitted, 2018b. URL https://www.cochez.nl/papers/

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- 35. Andrei Ionita, André Pomp, Michael Cochez, Tobias Meisen, and Stefan Decker. Where to park?: Predicting free parking spots in unmonitored city areas. In Proceedings of the 8th International Conference on Web Intelligence, Mining and Semantics, WIMS '18, pages 22:1-22:12, New York, NY, USA, 2018. ACM. ISBN 978-1-4503-5489-9. doi: 10.1145/3227609.3227648. URL https://www.cochez.nl/papers/parking_paper.pdf
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- 42. Michael Cochez, Vagan Terziyan, and Vadim Ermolayev. Large scale knowledge matching with balanced efficiency-effectiveness using LSH forest. In Ngoc Thanh Nguyen, Ryszard Kowalczyk, Alexandre Miguel Pinto, and Jorge Cardoso, editors, Transactions on Computational Collective Intelligence XXVI, pages 46–66. Springer International Publishing, Cham, 2017e. ISBN 978-3-319-59268-8. doi: 10.1007/978-3-319-59268-8.3. URL https://www.cochez.nl/papers/KnowledgeMatchingLSHForest.pdf
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- 2. *Michael Cochez*, Thierry Declerck, Gerard de Melo, Luis Espinosa Anke, Besnik Fetahu, Dagmar Gromann, Mayank Kejriwal, Maria Koutraki, Freddy Lécué, Enrico Palumbo, and Harald Sack, editors. *Proceedings of*

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- 2. Martina Garofalo, Maria Angela Pellegrino, Abdulrahman Altabba, and Michael Cochez. Leveraging knowledge graph embedding techniques for industry 4.0 use cases. Cyber Defence in Industry 4.0 Systems and Related Logistics and IT Infrastructures IOS Press, 51:10, 2018. URL https://arxiv.org/abs/1808.00434

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Master Thesis and Dissertation

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