List of Publications

Michael Cochez

July 7, 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.

- 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
- 2. 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
- 3. 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
- 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

- 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
- 8. Christopher Wewer, Florian Lemmerich, and *Michael Cochez*. Updating embeddings for dynamic knowledge graphs. *arXiv preprint arXiv:2109.10896*, 2021
- 9. Leandro Eichenberger, *Michael Cochez*, Benjamin Heitmann, and Stefan Decker. Secure evaluation of knowledge graph merging gain. *arXiv* preprint arXiv:2103.00082, 2021
- 10. 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, 2022. 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
- 12. 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
- 13. 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
- 14. 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
- Daniel Daza, Michael Cochez, and Paul Groth. Inductive entity representations from text via link prediction. In Proceedings of the Web Conference 2021, page 798–808. Association for Computing Machinery, New York, NY, USA, 2021. ISBN 9781450383127. URL https://arxiv.org/abs/2010.03496

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- 18. Michael Ellers, *Michael Cochez*, Tobias Schumacher, Markus Strohmaier, and Florian Lemmerich. Privacy attacks on network embeddings, 2019. URL https://arxiv.org/abs/1912.10979
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- 21. Ahmed Hallawa, Giovanni Iacca, Cagatay Sariman, Touhidur Rahman, *Michael Cochez*, and Gerd Ascheid. Morphological evolution for pipe inspection using robot operating system (ROS). *Materials and Manufacturing Processes*, 35(6):714–724, 2020. doi: 10.1080/10426914.2020.1746335. URL https://doi.org/10.1080/10426914.2020.1746335
- 22. Daniel Daza and *Michael Cochez*. Message passing query embedding. presented at presented at the GRL+ ICML workshop https://grlplus.github.io/, 2020. URL https://arxiv.org/abs/2002.02406
- Md Rezaul Karim, Oya Beyan, Achille Zappa, Ivan G Costa, Dietrich Rebholz-Schuhmann, Michael Cochez, and Stefan Decker. Deep learningbased clustering approaches for bioinformatics. Briefings in Bioinformatics, 02 2020a. ISSN 1477-4054. doi: 10.1093/bib/bbz170. URL https:// doi.org/10.1093/bib/bbz170. bbz170
- 24. Ruijie Wang, Meng Wang, Jun Liu, Michael Cochez, and Stefan Decker. Structured query construction via knowledge graph embedding. Knowledge and Information Systems, 62(5):1819–1846, May 2020. ISSN 0219-3116. doi: 10.1007/s10115-019-01401-x. URL https://doi.org/10.1007/s10115-019-01401-x

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- 29. Andrei Ionita, André Pomp, *Michael Cochez*, Tobias Meisen, and Stefan Decker. Transferring knowledge from monitored to unmonitored areas for forecasting parking spaces. *International Journal on Artificial Intelligence Tools World Scientific*, 28(06):1960003, 2019. URL https://arxiv.org/pdf/1908.03629.pdf
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- 35. Md. Rezaul Karim, Matthias Heinrichs, Lars C. Gleim, *Michael Cochez*, and others. Towards a FAIR sharing of scientific experiments: Improving discoverability and reusability of dielectric measurements of biological tissues. In *SWAT4HCLS*, 2017. URL http://www.swat4ls.org/wp-content/uploads/2017/11/SWAT4LS-2017_paper_11.pdf
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- 38. Michael Cochez, Petar Ristoski, Simone Paolo Ponzetto, and Heiko Paulheim. Biased graph walks for RDF graph embeddings. In Proceedings of the 7th International Conference on Web Intelligence, Mining and Semantics, WIMS '17, pages 21:1-21:12, New York, NY, USA, 2017c. ACM. ISBN 978-1-4503-5225-3. doi: 10.1145/3102254.3102279. URL https://www.cochez.nl/papers/biasedGraphWalks.pdf
- 39. Michael Cochez, Jacques Periaux, Vagan Terziyan, and Tero Tuovinen. Agile deep learning uavs operating in smart spaces: Collective intelligence versus "mission-impossible". In Pedro Diez, Pekka Neittaanmäki, Jacques Periaux, Tero Tuovinen, and Olli Bräysy, editors, Computational Methods and Models for Transport: New Challenges for the Greening of Transport Systems, pages 31–53. Springer International Publishing, Cham, 2018c. ISBN 978-3-319-54490-8. doi: 10.1007/978-3-319-54490-8_3. URL https://doi.org/10.1007/978-3-319-54490-8_3. first online 2017

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- 41. Vagan Terziyan, Mariia Golovianko, and Michael Cochez. Tb-structure: Collective intelligence for exploratory keyword search. In Semantic Keyword-Based Search on Structured Data Sources: COST Action IC1302 Second International KEYSTONE Conference, IKC 2016, Cluj-Napoca, Romania, September 8-9, 2016, Revised Selected Papers, pages 171-178. Springer International Publishing, Cham, 2017. ISBN 978-3-319-53640-8. doi: 10.1007/978-3-319-53640-8.15. URL https://www.cochez.nl/papers/IKC-2016.pdf
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- 47. Sergey Chernov, *Michael Cochez*, and Tapani Ristaniemi. Anomaly detection algorithms for the sleeping cell detection in LTE networks. In *Vehicular Technology Conference (VTC Spring)*, 2015 IEEE 81st, pages 1-5. IEEE, 2015. URL https://www.cochez.nl/papers/anomaly_sleeping_cell.pdf
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Proceedings Editor

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- 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 the First Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies (DL4KGS) co-located with the 15th Extended Semantic Web Conerence (ESWC 2018), number 2106 in CEUR, 2018a. CEUR. URL http://ceur-ws.org/Vol-2106/
- 3. Piero Andrea Bonatti, Stefan Decker, Axel Polleres, and Valentina Presutti. Knowledge Graphs: New Directions for Knowledge Representation on the Semantic Web (Dagstuhl Seminar 18371). *Dagstuhl Reports*, 8(9):

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Technical reports, documentation and articles (non-reviewed)

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- 3. Michael Cochez, Stefan Decker, and Eric Gordon Prud'hommeaux. Knowledge representation on the web revisited: Tools for prototype based ontologies. In arXiv, 2016b. URL https://arxiv.org/abs/1607.04809. arXiv:1607.04809 [cs.AI]
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Master Thesis and Dissertation

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Posters

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- 4. Michael Cochez and Hao Mou. Twister tries: Approximate hierarchical agglomerative clustering for average distance in linear time, June 2015b. Poster presented in addition to oral presentation at SIGMOD 2015. See also the article in the conference proceedings
- 5. Sami Helin, Ville Loppinen, Anton Kupias, *Michael Cochez*, and Michal Nagy. Multi-channel communication framework, Dec 2012. Poster presented at the Cloud software program review meeting Q4/2012
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Demos

1. Johannes Lipp, Lars Gleim, Michael Cochez, Iraklis Dimitriadis, Hussain Ali, Daniel Hoppe Alvarez, Christoph Lange, and Stefan Decker. Towards easy vocabulary drafts with neologism 2.0. In Ruben Verborgh, Anastasia Dimou, Aidan Hogan, Claudia d'Amato, Ilaria Tiddi, Arne Bröring, Simon Mayer, Femke Ongenae, Riccardo Tommasini, and Mehwish Alam, editors, The Semantic Web: ESWC 2021 Satellite Events, pages 21–26, Cham, 2021. Springer International Publishing. ISBN 978-3-030-80418-3. URL https://openreview.net/forum?id=PoAI5RrlUFj