Manling Li

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Educations

University of Illinois at Urbana-Champaign *08/2019 - Present*
- Ph.D. in Computer Science. Advisor: Prof. Heng Ji

Rensselaer Polytechnic Institute *08/2018 - 08/2019*
- Ph.D. in Computer Science. Advisor: Prof. Heng Ji

Insititute of Computing Technology, Chinese Academy of Sciences *08/2015 - 06/2018*
- M.S. in Computer Science and Technology. Advisor: Prof. Yuanzhuo Wang

University of Science and Technology Beijing *08/2011 - 06/2015*
- B.E. in Computer Science (Internet of Things)
- B.M. in Information Management and Information Systems (minor)

Research Interest

Natural Language Processing, with special focus on Multimedia Knowledge Extraction, Inference, and Generation

Publications

ACL'20 ***GAIA: A Fine-grained Multimedia Knowledge Extraction System***. Manling Li*, Alireza Zareian*, Ying Lin, Xiaoman Pan, Spencer Whitehead, Brian Chen, Bo Wu, Heng Ji, Shih-Fu Chang, Clare R. Voss, Dan Napierski, Marjorie Freedman. Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics: System Demonstrations. pp. 77–86 (**Best Demo Award at ACL2020**)

ACL'20 ***Cross-media Structured Common Space for Multimedia Event Extraction***. Manling Li*, Alireza Zareian*, Qi Zeng, Spencer Whitehead, Di Lu, Heng Ji, Shih-Fu Chang. Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, pp.2557–2568

Preprint ***COVID-19 Literature Knowledge Graph Construction and Drug Repurposing Report Generation***. Qingyun Wang, Manling Li, Xuan Wang, Nikolaus Parulian, Guangxing Han, Jiawei Ma, Jingxuan Tu, Ying Lin, Haoran Zhang, Weili Liu, Aabhas Chauhan, Yingjun Guan, Bangzheng Li, Ruisong Li, Xiangchen Song, Heng Ji, Jiawei Han, Shih-Fu Chang, James Pustejovsky, David Liem, Ahmed Elsayed, Martha Palmer, Jasmine Rah, Clare Voss, Cynthia Schneider, Boyan Onyshkevych. arXiv:2007.00576

ACL'19 ***Keep Meeting Summaries on Topic: Abstractive Multi-Modal Meeting Summarization***. Manling Li, Lingyu Zhang, Heng Ji, Rich Radke. Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics, pp.2190–2196

NAACL'19 ***Multilingual Entity, Relation, Event and Human Value Extraction***. Manling Li, Ying Lin, Joe Hoover, Spencer Whitehead, Clare R. Voss, Morteza Dehghani, Heng Ji. Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics (Demonstrations), pp.110–115

TAC KBP'19 ***GAIA at SM-KBP 2019 - A Multi-media Multi-lingual Fine-Grained Knowledge Extraction and Hypothesis Generation System***. Manling Li, Ying Lin, , etc. Text Analysis Conference Knowledge Base Population (TAC-KBP) Workshop 2019

TAC KBP'19 ***A Baseline Fine-Grained Entity Extraction System for TAC-KBP2019***. Ying Lin, Xiaoman Pan, Manling Li, Heng Ji , etc. Text Analysis Conference Knowledge Base Population (TAC-KBP) Workshop 2019

ACM MMSys'19 ***The Unobtrusive Group Interaction (UGI) Corpus***. Indrani Bhattacharya, Michael Foley, Ni, Tongtao Zhang, Christine Ku, Cameron Mine, Manling Li, Heng Ji, etc. Proceedings of the 10th ACM Multimedia Systems Conference, pp.249-254

TAC KBP'18	***GAIA - A Multi-media Multi-lingual Knowledge Extraction and Hypothesis Generation System***. Tongtao Zhang, Ananya Subburathinam, Ge Shi, Lifu Huang, Di Lu, Xiaoman Pan, Manling Li, Boliang Zhang, Qingyun Wang, Spencer Whitehead, Heng Ji, etc. Text Analysis Conference Knowledge Base Population (TAC-KBP) Workshop 2018
WWW'18	***Hierarchical Types Constrained Topic Entity Detection for Knowledge Base Question Answering***. Yunqi Qiu, Manling Li, Yuanzhuo Wang, Yantao Jia, Xiaolong Jin. Companion Proceedings of The Web Conference 2018, pp.35-36 (abstract)
AAAI'18	***Path-Based Attention Neural Model for Fine-Grained Entity Typing***. Denghui Zhang, Manling Li, Pengshan Cai, Yantao Jia, Yuanzhuo Wang. Proceedings of the 32nd AAAI Conference on Artificial Intelligence, pp.8179-8180 (abstract)
IEEE Trans	***Link Prediction in Knowledge Graphs: A Hierarchy-Constrained Approach***. Manling Li, Yuanzhuo Wang, Denghui Zhang, Yantao Jia, Xueqi Cheng. IEEE Transactions on Big Data, pp.1-14
WI'17	***Efficient Parallel Translating Embedding For Knowledge Graphs***. Denghui Zhang, Manling Li, Yantao Jia, Yuanzhuo Wang, Xueqi Cheng. Proceedings of the IEEE/WIC/ACM International Conference on Web Intelligence 2017, pp.460-468
TAC KBP'16	***OpenKN at TAC KBP 2016***. Manling Li, Xinlei Chen, Yantao Jia, Yuanzhuo Wang, etc. TAC KBP Workshop 2016
WWW'16	***Hierarchy-Based Link Prediction in Knowledge Graphs***. Manling Li, Yantao Jia, Yuanzhuo Wang, Jingyuan Li, Xueqi Cheng. Proceedings of the 25th International Conference Companion on World Wide Web, pp.77-78 (abstract)
AAAI'16	***Predicting Links and Their Building Time: A Path-Based Method***. Manling Li, Yantao Jia, Yuanzhuo Wang, Zeya Zhao, Xueqi Cheng. Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, pp.4228-4229 (abstract)
Patent	***An Ontology Alignment Algorithm Based on Knowledge Graph Embedding***. 1st student author. No. CN108694201A
Patent	***A Relation Inference System Based on Knowledge Graph Embedding***. 1st student author. No. CN106909622A
Patent	***A Tag Inference System Based on Knowledge Graph Embedding***. 2nd student author. No.CN107391577A
Patent	***A Fine-Grained Classification Method for Knowledge Base***. 2nd student author. No. CN104615687B
Patent	***An Attribute Extraction Method for Web Pages***. 2nd student author. No. CN104636466A

Experience

IBM Research *07/2020 - 09/2020*

Mentor: Tengfei Ma, Mo Yu

- Focus on knowledge graph summarization. Given a large knowledge graph, we aim to compress the KG to get a much smaller subgraph to have it correspond to some query and keep the most important information of the original graph.
- Due to lack of data, we develop an unsupervised learning model based on graph coarsening and optimal transport.

Honors

Awards

- ACL2020 Best Demo Paper Award

Scholarships and Fellowships

- National Scholarship, Chinese Academy of Sciences Scholarship, Schlumberger Fellowship

Academic and Scientific Competitions

- **1st prize** in National Computer Game Tournament, 2nd Prize in National Computer Game Tournament
- **1st prize** in National Software Innovation Competition, 3rd prize in National Information Security Competition
- 2nd prize in National Computer Design Competition, 3rd prize in National Trail of International Contest of innovation
- 2nd prize in Beijing "LAN QIAO Cup" ICPC Individual (C/C++), 2nd prize in Student Research Training Program of China

Skills

Language	Python, Java (Oracle Certified Professional Java Programmer), C, C++, Shell, Scala, MATLAB, SQL.