

Chenyan Xiong

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Research Interests: Information Retrieval; Conversational Agent; Deep Learning; Text Understanding

Education

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| Ph.D., Language Technologies Institute, SCS, Carnegie Mellon University | 2018 |
| M.S., Language Technologies Institute, SCS, Carnegie Mellon University | 2017 |
| M.S., Institute of Software, Chinese Academy of Sciences | 2012 |
| B.Eng., School of Computer Science, Wuhan University | 2009 |

Experiences

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| Researcher , Information and Data Science Group, Microsoft Research AI | 2018-Present |
| Working on Information Retrieval, Text Understanding, and Conversational Agents | |
| Research Assistant , Language Technologies Institute, SCS, Carnegie Mellon University | 2012-2018 |
| Worked with Prof. Jamie Callan on using knowledge graph and deep learning for text representation, retrieval, and understanding | |
| Intern , Rulai (Part Time) | 2017-2018 |
| Worked with Prof. Yi Zhang on semantic and intelligent task-oriented dialog systems | |
| Intern , Allen Institute for Artificial Intelligence | Summer 2016 |
| Worked with Oren Etzioni and Russell Power on academic search with knowledge graphs | |
| Research Assistant , Institute of Software, Chinese Academy of Sciences | 2009-2012 |
| Worked with Prof. Yidong Shen on document summarization and learning to rank | |
| Intern , Artificial Intelligence Group, Microsoft Research Asia | 2010-2012 |
| Worked with Taifeng Wang and Tie-Yan Liu on parallel computing and internet advertising | |
| Intern , Baidu | 2008-2009 |
| Worked in Baidu's online advertising team on named entity recognition and extraction | |

Conference Publications

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| Zhenghao Liu, Chenyan Xiong , Maosong Sun and Zhiyuan Liu. <i>Entity-Duet Neural Ranking: Understanding the Role of Knowledge Graph Semantics in Neural Information Retrieval</i> . In Proceedings of the 56 th Annual Meeting of the Association for Computational Linguistics. ACL. 2018. | ACL 2018 |
| Chenyan Xiong , Zhengzhong Liu, Jamie Callan and Tie-Yan Liu. <i>Towards Better Text Understanding and Retrieval through Kernel Entity Saliency Modeling</i> . In Proceedings of the 41 st International ACM SIGIR Conference on Research and Development in Information Retrieval. ACM. 2018 | SIGIR 2018 |
| Mary Arpita Pyreddy, Varshini Ramaseshan, Narendra Nath Joshi, Zhuyun Dai, Chenyan Xiong , Jamie Callan and Zhiyuan Liu. <i>Consistency and Variation in Kernel Neural Ranking Model</i> . In Proceedings of the 41 st International ACM SIGIR Conference on Research and Development in | SIGIR 2018 |

Information Retrieval. ACM. 2018. (Short Paper).

Bin Wu, **Chenyan Xiong**, Maosong Sun, and Zhiyuan Liu. *Query Suggestion with Feedback Memory Network*. In Proceedings of the 27th International World Wide Web Conference. IW3C2. 2018. WWW 2018

Zhuyun Dai, **Chenyan Xiong**, Jamie Callan, and Zhiyuan Liu. *Convolutional Neural Networks for Soft-matching N-grams in Ad-hoc Search*. In Proceedings of the 10th ACM International Conference on Web Search and Data Mining. ACM. 2018. WSDM 2018

Chenyan Xiong, Zhengzhong Liu, Jamie Callan, and Eduard Hovy. *JointSem: Combining Query Entity Linking and Entity based Document Ranking*. In Proceedings of the 26th ACM International Conference on Information and Knowledge Management. ACM. 2017. (Short Paper). CIKM 2017

Chenyan Xiong, Jamie Callan, and Tie-Yan Liu. *Word-Entity Duet Representations for Document Ranking*. In Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval. ACM. 2017. SIGIR 2017

Chenyan Xiong, Zhuyun Dai, Jamie Callan, Zhiyuan Liu, and Russell Power. *End-to-End Neural Ad-hoc Ranking with Kernel Pooling*. In Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval. ACM. 2017. SIGIR 2017

Faegheh Hasibi, Fedor Nikolaev, **Chenyan Xiong**, Krisztian Balog, Svein Erick Bratsberg, Alexander Kotov, and Jamie Callan. *DBpedia-Entity v2: A Test Collection for Entity Search*. In Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval. ACM. 2017. (Resource Paper, Best Short Paper Nomination). SIGIR 2017

Chenyan Xiong, Russell Power, and Jamie Callan. *Explicit Semantic Ranking for Academic Search via Knowledge Graph Embedding*. In Proceedings of the 26th International World Wide Web Conference. IW3C2. 2017. WWW 2017

Zhuyun Dai, **Chenyan Xiong**, and Jamie Callan. *Query-Biased Partitioning for Selective Search*. In Proceedings of the 25th ACM International Conference on Information and Knowledge Management. ACM. 2016. CIKM 2016

Chenyan Xiong, Jamie Callan, and Tie-Yan Liu. *Bag-of-Entities Representation for Ranking*. In Proceedings of the Second ACM SIGIR International Conference on the Theory of Information Retrieval. ACM. 2016. (Short Paper). ICTIR 2016

Jing Chen, **Chenyan Xiong**, and Jamie Callan. *An Empirical Study of Learning to Rank for Entity Search*. In Proceedings of the 39th International ACM SIGIR Conference on Research and Development in Information Retrieval. ACM. 2016. (Short Paper). SIGIR 2016

Chenyan Xiong and Jamie Callan. *EsdRank: Connecting Query and Documents through External Semi-Structured Data*. In Proceedings of the 24th ACM International Conference on Information and Knowledge Management. ACM. 2015. CIKM 2015

Chenyan Xiong and Jamie Callan. *Query Expansion with Freebase*. In Proceedings of the First ACM SIGIR International Conference on the Theory of Information Retrieval. ACM. 2015. ICTIR 2015

Di Wang, **Chenyan Xiong**, and William Yang Wang. *Automatic Partitioning for Multi-Domain Learning*. In Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing. ACL. 2013. (Short Paper). EMNLP 2013

Chenyan Xiong, Taifeng Wang, Wenkui Ding, Yidong Shen, and Tie-Yan Liu. *Relational Click Prediction for Sponsored Search*. In Proceedings of the fifth ACM International Conference on Web Search and Data Mining. ACM. 2012. WSDM 2012

Xuan Li, Yidong Shen, Liang Du, and **Chenyan Xiong**. *Exploiting Novelty, Coverage, and Balance for Topic-Focused Multi-Document Summarization*. In Proceedings of the 19th ACM International Conference on Information and Knowledge Management. ACM. 2010. (Short Paper). CIKM 2010

Workshop and Non-Referred Publications

Zhuyun Dai, **Chenyan Xiong**, and Jamie Callan. *An Evaluation of the Kernel Based Neural Ranking Model in NTCIR-13 WWW*. In Proceedings of the 13th NTCIR Conference on Evaluation of Information Access Technologies. National Center of Sciences. 2017. NTCIR 2017

Hongyu Li, **Chenyan Xiong**, and Jamie Callan. *Natural Language Supported Relation Matching for Question Answering with Knowledge Graphs*. In Proceedings of the First Workshop on Knowledge Graphs and Semantics for Text Retrieval and Analysis. ACM. 2017. (SIGIR Workshop Paper) KG4IR 2017

Bhavana Dalvi, **Chenyan Xiong**, and Jamie Callan. *A Language Modeling Approach to Entity Recognition and Disambiguation for Search Queries*. In Proceedings of the First International Workshop on Entity Recognition and Disambiguation. ACM. 2014. (SIGIR Workshop Paper). ERD 2014

Invited Talks

Neural Information Retrieval CMU ML Lunch 2017
Text Representation, Retrieval, and Understanding with Knowledge Graphs CMU AI Seminar 2017
Text Representation, Retrieval, and Understanding with Knowledge Graphs Facebook Search 2018

Awards

Best Short Paper Nomination SIGIR 2017
Allen Institute for AI Research Fellowship (\$50,000) Fall 2016
Lei Jun Scholarship, Wuhan University Spring 2008
Best Intern, Baidu, E-Commerce Department Fall 2008

Teaching

Teaching Assistant, Search Engines (11-642), Carnegie Mellon University Fall 2014 and Spring 2015

Professional Services

Co-Editor, The Information Retrieval Journal Special Issue on Knowledge Graphs and Semantics in Text Analysis and Retrieval IRJ 2018

Co-Organizer, TREC Conversational Assistant Track TREC 2019

Co-Organizer, "We Want Web" (Web Search) Track NTCIR 2017

Co-Organizer, The Workshops on Knowledge Graphs and Semantics for Text Retrieval and Analysis (KG4IR) SIGIR 2017-2018

PC Member, The ACM SIGKDD Conference on Knowledge Discovery and Data Mining KDD 2018

PC Member, The European Semantic Web Conference ESWC 2018

PC Member, The International World Wide Web Conference WWW 2018-2019

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| PC Member , The ACM International Conference on Web Search and Data Mining | WSDM 2018-2019 |
| PC Member , The ACM SIGIR International Conference on the Research and Development in Information Retrieval | SIGIR 2016-2018 |
| PC Member , The Annual Meeting of the Association for Computational Linguistics | ACL 2016-2018 |
| PC Member , The ACM International Conference on Information and Knowledge Management | CIKM 2017-2018 |
| PC Member , The European Chapter of the Association of Computational Linguistics | EACL 2017 |
| PC Member , The International Joint Conference on Artificial Intelligence | IJCAI 2013 |
| Reviewer , The Foundation and Trends in Information Retrieval | FnTIR 2018 |
| Reviewer , The Neurocomputing Journal | NEUCOM 2017 |
| Reviewer , The ACM International Conference on Web Search and Data Mining | WSDM 2016-2017 |
| Reviewer , ACM Transactions on Information Systems | TOIS 2016-2017 |
| Reviewer , ACM Transactions on the Web | TWEB 2016 |
| Reviewer , The Information Retrieval Journal | IRJ 2015 |
| Reviewer , IEEE Transactions on Knowledge and Data Engineering | TKDE 2015 |