

# Grace Hui Yang

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## Areas of specialisation

Information Retrieval, Deep Reinforcement Learning, Conversational Agents

## Current position(s)

August 2025-	Professor, Department of Computer Science, Georgetown University
2024-present	Affiliated Faculty, Center for Digital Ethics, Georgetown University
2024-present	Affiliated Faculty, Technology, Ethics, and Society (TES) program, Georgetown University
2025-present	Affiliated Faculty, Massive Data Institute, Georgetown University

## Appointments held

2017-2025	Associate Professor, Department of Computer Science, Georgetown University
2022-2024	Director of Graduate Studies, Department of Computer Science, Georgetown University
2020-2020	Visiting Associate Professor, National University of Singapore
2019-2019	Visiting Researcher, University of California Berkeley
2011-2017	Assistant Professor in Computer Science, Georgetown University
2012-2012	Researcher, U.S. Patent and Trademark Office
2009-2009	Research Intern, Microsoft Bing
2004-2011	Research Assistant, Carnegie Mellon University
2001-2004	Tutor, National University of Singapore
1999-2000	System Analyst Intern, Singapore Telecommunication

## Education

2011	PhD in Computer Science and Language Technologies, Carnegie Mellon University
2007	MSC in Computer Science and Language Technologies, Carnegie Mellon University
2004	MSC in Computer Science, National University of Singapore
2001	BSc with First Class Honors in Computer Science, National University of Singapore

## Honors & awards

2015	CAREER Award, National Science Foundation
2017	Best Student Paper Award, ACM ICTIR Conference
2015	Best Paper Runner-up, IEEE/ACM ASONAM Conference
2023	Best Open-Source System, TREC Interactive Knowledge Assistance (iKAT) Track
2017	Best Retrieval System, DARPA Memex Program
2002-2003	Best System Runner-up, TREC Question Answering Tracks
1996	Singapore Ministry of Education Scholarship

## Grants

2024.6-2027.5	Hui Yang (PI) and Chirag Shah (Co-PI, University of Washington). "A DREAM Proactive Conversational System." National Science Foundation IIS-2336768. Georgetown Award \$339,927 (collaborating with University of Washington for a total of \$599,974).
2024.1-2025.1	Hui Yang (PI). "Enhancing Large Language Models for Reliable Reference Recommendations." Georgetown University Initiative on Pedagogical Uses of Artificial Intelligence (IPAI) Internal Grant. \$10,000.
2015.2-2021.1	Hui Yang (PI). "Statistical Information Retrieval Modeling for Complex Search." National Science Foundation CAREER Award IIS-1453721. \$552,012.
2014.9-2018.7	Hui Yang (PI). "Dynamic Information Retrieval Modeling for Domain-Specific Search." Defense Advanced Research Projects Agency FA8750-14-2-0226. \$947,747.
2016.9-2017.8	Hui Yang (PI). "III: Student Travel Fellowships for SIGIR Privacy-Preserving IR Workshop." National Science Foundation III-1649045. \$12,000.
2013.1-2017.8	Lisa Singh (PI), Micah Sherr (co-PI), Hui Yang (co-PI). "TWC: Small: Assessing Online Information Exposure Using Web Footprints." National Science Foundation CNS-1223825. \$499,996.
2012.5-2012.8	Hui Yang (PI). "Evaluating Search and Linguistics Tools for Patents." United States Patent and Trademark Office 12289075. \$41,993.

## Publications & talks

### BOOK

1. Grace Hui Yang, Marc Sloan<sup>†</sup>, and Jun Wang. "Dynamic Information Retrieval Modeling." Synthesis Series of lectures/monographs on Information Concepts, Retrieval, and Services. *Morgan & Claypool*. (2016). ISBN-10: 1627055258. ISBN-13: 978-1627055253.

### JOURNAL ARTICLES (REFEREED)

2. Yang Deng, Lizi Liao, Wenqiang Lei, Grace Hui Yang, Wai Lam, Tat-Seng Chua. "Proactive Conversational AI: A Comprehensive Survey of Advancements and Opportunities." *ACM Transactions on Information Systems*, Volume 43, Issue 3. (2025).
3. Wenjie Wang, Zheng Liu, Fuli Feng, Zhicheng Dou, Qingyao Ai, Grace Hui Yang, Defu Lian, Lu Hou, Nick Craswell, Aixin Sun, Hamed Zamani, Donald Metzler, Maarten de Rijke. "Pre-trained Models for Search and Recommendation: Introduction to the Special Issue—Part 1." *ACM*

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<sup>†</sup>Non-Georgetown student authors are marked with <sup>†</sup>.

Transactions on Information Systems, Volume 43, Issue 2. (2025).

4. Jiyun Luo<sup>‡</sup>, Yan Yang<sup>†</sup>, Valerie Nayak<sup>‡</sup>, and Grace Hui Yang. "Improving searcher struggle detection via the reversal theory." *Discovery Computing*. 27(1): 51 (2024).
5. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "A Re-classification of Information Seeking Tasks and Their Computational Solutions." *ACM Transactions on Information Systems* 40(4): 80:1-80:32 (2022).
6. Grace Hui Yang, Xuchu Dong<sup>†</sup>, Jiyun Luo<sup>†</sup>, and Sicong Zhang<sup>†</sup>. "Session search modeling by partially observable Markov decision process." *Information Retrieval Journal* 21(1): 56-80 (2018).
7. Hui Yang. "Browsing Hierarchy Construction by Minimum Evolution." *ACM Transactions on Information Systems* 33(3): 13:1-13:33 (2015).
8. Hui Yang, Dongyi Guan<sup>†</sup>, and Sicong Zhang<sup>†</sup>. "The Query Change Model: Modeling Session Search as a Markov Decision Process." *ACM Transactions on Information Systems* 33(4): 20:1-20:33 (2015).
9. Marc Sloan<sup>‡</sup>, Hui Yang, and Jun Wang. "A term-based methodology for query reformulation understanding." *Information Retrieval Journal* 18, 145-165 (2015).
10. Grace Hui Yang. "Automatic and Interactive Browsing Hierarchy Construction for Scientific Publication Collections." *D-Lib Magazine* 18(7/8) (2012).
11. Hui Yang and Jamie Callan. "OntoCop: Constructing Ontologies for Public Comments." *IEEE Intelligent Systems* 24: 70-75. (2009).

#### CONFERENCE PAPERS (REFEREED)

##### Long papers

12. Yang Deng<sup>‡</sup>, Lizi Liao, Zhonghua Zheng, Grace Hui Yang and Tat-Seng Chua. "Towards Human-centered Proactive Conversational Agents." To appear in *Proceedings of the 47th ACM SIGIR International Conference (SIGIR '24)*. Washington, D.C. July 14-18, 2024.
13. Sibor Dong<sup>†</sup>, Justin Goldstein<sup>†</sup>, and Grace Hui Yang. "GazBy: Gaze-Based BERT Model to Incorporate Human Attention in Neural Information Retrieval." *Proceedings of the 8th ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR '22)*. Madrid, Spain. July 11-12, 2022.
14. Zhiwen Tang<sup>†</sup>, Hrishikesh Kulkarni<sup>†</sup>, and Grace Hui Yang. "High-Quality Diversification for Task-Oriented Dialogue Systems." *Findings of The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021)*. Bangkok, Thailand. August 1-6, 2021.
15. Katherine Stasaski<sup>‡</sup>, Grace Hui Yang, and Marti A. Hearst. "More Diverse Dialogue Datasets via Diversity-Informed Data Collection." *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL 2020)*. Seattle, WA, USA. July 5-10, 2020.
16. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Corpus-Level End-to-End Exploration for Interactive Systems." *Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI '20)*. New York, NY, USA. Feb 7-12, 2020.
17. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "DeepTileBars: Visualizing Term Distribution for Neural Information Retrieval." *Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI '19)*. Honolulu, Hawaii, USA. January 27 – February 1, 2019.
18. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Investigating Per Topic Upper Bound for Session Search Evaluation." *Proceedings of the 3rd ACM International Conference on the Theory of Information Retrieval (ICTIR 2017)*. Amsterdam, Netherlands. October 1-4, 2017. (Best Student Paper)

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<sup>‡</sup>Georgetown student or postdoc authors are marked with <sup>‡</sup>.

19. Sicong Zhang<sup>†</sup> and Grace Hui Yang. "Deriving Differentially Private Session Logs for Query Suggestion." *Proceedings of the 3rd ACM International Conference on the Theory of Information Retrieval (ICTIR 2017)*. Amsterdam, Netherlands. October 1-4, 2017.
20. Sicong Zhang<sup>†</sup>, Grace Hui Yang, Lisa Singh, and Li Xiong. "Safelog: Anonymizing Query Logs with Differential Privacy for Web Search." *Fall 2016 Symposium on Privacy and Language Technologies for the Association for the Advancement of Artificial Intelligence (AAAI) 2016*. Virginia, VA. November 17-19, 2016.
21. Jiyun Luo<sup>†</sup>, Xuchu Dong<sup>†</sup>, and Hui Yang. "Learning to Reinforce Search Effectiveness." *Proceedings of the ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR 2015)*. Northampton, Massachusetts. September 27-30, 2015.
22. Jiyun Luo<sup>†</sup>, Xuchu Dong<sup>†</sup>, and Hui Yang. "Session Search by Direct Policy Learning." *Proceedings of the ACM SIGIR International Conference on the Theory of Information Retrieval (ICTIR 2015)*. Northampton, Massachusetts. September 27-30, 2015.
23. Jiyun Luo<sup>†</sup>, Sicong Zhang<sup>†</sup>, Xuchu Dong<sup>†</sup>, and Hui Yang. "Designing States, Actions, and Rewards for Using POMDP in Session Search." *Proceedings of the 37th European Conference on Information Retrieval (ECIR 2015)*. Vienna, Austria. March 29-April 02, 2015.
24. Lisa Singh, Grace Hui Yang, Micah Sherr, Andrew Hian-Cheong<sup>†</sup>, Kevin Tian<sup>†</sup>, Janet Zhu<sup>†</sup>, and Sicong Zhang.<sup>†</sup> "Public Information Exposure Detection: Helping Users Understand Their Web Footprints." *Proceedings of the 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2015)*. Paris, France. August 25-28, 2015. (Best Paper Runner-up)
25. Jiyun Luo<sup>†</sup>, Sicong Zhang<sup>†</sup>, and Hui Yang. "Win-Win Search: Dual-Agent Stochastic Game in Session Search." *Proceedings of the 37th Annual ACM SIGIR Conference (SIGIR 2014)*. Gold Coast, Australia. July 6-11, 2014.
26. Dongyi Guan<sup>†</sup> and Hui Yang. "Is the First Query the Most Important: An Evaluation of Query Aggregation Schemes in Session Search." *Proceedings of the 2014 Asia Information Retrieval Society Conference (AIRS 2014)*. Kuching, Sarawak, Malaysia. Dec 3-5, 2014.
27. Dongyi Guan<sup>†</sup>, Sicong Zhang<sup>†</sup>, and Hui Yang. "Utilizing Query Change for Session Search." *Proceedings of the 36th Annual ACM SIGIR Conference (SIGIR 2013)*. Dublin, Ireland. July 28 - August 1, 2013.
28. Dongyi Guan<sup>†</sup> and Hui Yang. "Increasing Stability of Result Organization for Session Search." *Proceedings of the 34th European Conference on Information Retrieval (ECIR 2013)*. Moscow, Russia. March 24-27, 2013.
29. Hui Yang. "Constructing Task-Specific Taxonomies for Document Collection Browsing." *Proceedings of Joint Meeting of Conference on Empirical Methods in Natural Language Processing and Conference on Computational Natural Language Learning (EMNLP-CoNLL2012)*. Jeju, Korea. July 12-14, 2012.
30. Hui Yang, Anton Mityagin, Krysta Svore, and Sergey Markov. "Collecting High Quality Overlapping Labels at Low Cost." *Proceedings of the 33th Annual ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2010)*, Geneva, Switzerland. July 19-23, 2010.
31. Hui Yang and Jamie Callan. "A Metric-based Framework for Automatic Taxonomy Induction." *Proceedings of the 47th Annual Meeting of the Association for Computational Linguistics (ACL 2009)*, Singapore. Aug 2-7, 2009.
32. Hui Yang and Jamie Callan. "Ontology generation for large email collections." *Proceedings of the 8th National Conference on Digital Government Research (Dg.O 2008)*. Montreal, Canada. May 2008.
33. Hui Yang and Jamie Callan. "Near-Duplicate Detection by Instance-level Constrained Cluster-

ing." *Proceedings of the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR 2006), Seattle, WA. Aug 6-11 2006.

34. Hui Yang, Jamie Callan, and Stuart Shulman. "Next Steps in Near-Duplicate Detection for eRule-making." *Proceedings of the 6th National Conference on Digital Government Research* (Dg.O 2006), San Diego, CA. May 21-24 2006.
35. Hui Yang and Jamie Callan. "Near-Duplicate Detection for eRulemaking." *Proceedings of the 5th National Conference on Digital Government Research* (Dg.O 2005), Atlanta, GA. May 15-18 2005.
36. Hui Yang and Tat-Seng Chua. "Web-based List Question Answering." *Proceedings of the 20th International Conference on Computational Linguistics* (COLING 2004), Geneva, Switzerland. Aug 23-27 2004.
37. Hui Yang, Tat-Seng Chua, Shuguang Wang, and Chun-Keat Koh. "Structured Use of External Knowledge for Event-based Open Domain Question Answering." *Proceedings of the 26th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR 2003), Toronto, Canada. July 28-Aug 3 2003.
38. Hui Yang, Lekha Chaisson, Yunlong Zhao, Shi-Yong Neo, and Tat-Seng Chua. "VideoQA: Question Answering on News Video." *Proceedings of the 11th Annual ACM International Conference on Multimedia* (ACM MM 2003), Berkeley, CA. Nov 2-8, 2003.
39. Hui Yang and Tat-Seng Chua. "QUALIFIER: Question Answering by Lexical Fabric and External Resource." *Proceedings of the 10th Conference of the European Chapter of the Association for Computational Linguistics* (EACL 2003), Budapest, Hungary. April 12-17, 2003.

## Short papers

40. Limin Chen<sup>†</sup>, Zhiwen Tang<sup>†</sup>, and Grace Hui Yang. "Balancing Reinforcement Learning Training Experiences in Interactive Information Retrieval." *Proceedings of the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR '20). Xi'an, China. July 25-30, 2020.
41. Yue Yu<sup>†</sup>, Siyao Peng<sup>†</sup>, and Grace Hui Yang. "Modeling Long-Range Context for Concurrent Dialogue Acts Recognition." *Proceedings of the 28th ACM International Conference on Information and Knowledge Management* (CIKM 2019). Beijing, China. November 3-7, 2019.
42. Angela Yang<sup>†</sup> and Grace Hui Yang. "A Contextual Bandit Approach to Dynamic Search." *Proceedings of the 3rd ACM International Conference on the Theory of Information Retrieval* (ICTIR 2017). Amsterdam, Netherlands. October 1-4, 2017.
43. Janet Zhu<sup>†</sup>, Sicong Zhang<sup>†</sup>, Lisa Singh, Grace Hui Yang, and Micah Sherr. "Generating Risk Reduction Recommendations to Decrease Vulnerability of Public Online Profiles." *Proceedings of the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (ASONAM '16). San Francisco, CA, USA. August 18-21, 2016.
44. Sicong Zhang<sup>†</sup>, Grace Hui Yang, and Lisa Singh. "Anonymizing Query Logs by Differential Privacy." *Proceedings of the 39th Annual ACM SIGIR Conference* (SIGIR 2016). Pisa, Italy. July 17-21, 2016.
45. Andrew Jie Zhou<sup>†</sup>, Hui Yang, and Hongkai Wu.<sup>†</sup> "Minerva II: A Novel Entity Discovery Tool." *Proceedings of 35th Conference on Human Factors in Computing Systems* (Late Breaking Work) (CHI 2016). San Jose, CA, USA. May 7-12, 2016.
46. Hui Yang, Jiyun Luo<sup>†</sup>, and Christopher Wing.<sup>†</sup> "Detecting the Eureka Effect in Complex Search Tasks." *Proceedings of the 37th European Conference on Information Retrieval* (ECIR 2015). Vienna, Austria. March 29-April 02, 2015.
47. Lisa Singh, Hui Yang, Micah Sherr, Yifang Wei<sup>†</sup>, Andrew Hian-Cheong<sup>†</sup>, Kevin Tian<sup>†</sup>, Janet

- Zhu<sup>†</sup>, Sicong Zhang<sup>†</sup>, Tavish Vaidya<sup>†</sup>, and Elchin Asgarli<sup>†</sup>. “Helping Users Understand Their Web Footprints.” *Proceedings of the 24th International World Wide Web Conference (WWW 2015)*. Florence, Italy. May 18-22, 2015.
48. Sicong Zhang<sup>†</sup>, Jiyun Luo<sup>†</sup>, and Hui Yang. “A POMDP Model for Content-Free Document Re-ranking.” *Proceedings of the 37th Annual ACM SIGIR Conference (SIGIR 2014)*. Gold Coast, Australia. July 6-11, 2014.
49. Jiyun Luo<sup>†</sup>, Christopher Wing<sup>†</sup>, Hui Yang, and Marti Hearst. “The Water Filling Model and The Cube Test: Multi-Dimensional Evaluation for Professional Search.” *Proceedings of the 22nd International Conference on Information and Knowledge Management (CIKM 2013)*, Burlingame, CA, USA. October 27 - Nov 1, 2013.
50. Sicong Zhang<sup>†</sup>, Dongyi Guan<sup>†</sup>, and Hui Yang. “Query Change as Relevance Feedback in Session Search.” *Proceedings of the 36th Annual ACM SIGIR Conference (SIGIR 2013)*. Dublin, Ireland. July 28 - August 1, 2013.
51. W. Brad Moore<sup>†</sup>, Yifang Wei<sup>†</sup>, Adam Orshefsky<sup>†</sup>, Micah Sherr, Lisa Singh, and Hui Yang. “Understand Site-Based Inference Potential for Identifying Hidden Attributes.” *Proceedings of the 5th ASE/IEEE International Conference on Information Privacy, Security, Risk and Trust (PASSAT 2013)*, Washington, DC, USA. September 8-14, 2013.
52. Hui Yang and Jamie Callan. “Feature Selection for Automatic Taxonomy Induction.” *Proceedings of the 32nd Annual ACM SIGIR Conference (SIGIR 2009)*. Boston, MA, USA. July 19-23, 2009.
53. Hui Yang and Tat-Seng Chua. “FADA: Find All Distinct Answers.” *Proceedings of the 13th International World Wide Web Conference (WWW 2004)*. New York, USA. May 17-22, 2004.
54. Hui Yang and Tat-Seng Chua. “Effectiveness of Web Page Classification on Finding List Answers.” *Proceedings of the 27th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2004)*, Sheffield, South York Shire, UK. July 25-29, 2004.
55. Hui Yang, Tat-Seng Chua, and Shuguang Wang. “Modeling Web Knowledge for Answering Event-based Questions.” *Proceedings of the 12th International World Wide Web Conference (WWW 2003)*, Budapest, Hungary, May 2003.

### Demonstration papers

56. Andrew Jie Zhou<sup>†</sup> and Grace Hui Yang. 2018. “Minority Report by Lemur: Supporting Search Engine with Virtual Reality.” *Proceedings of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR ’18)*. 1329–1332. Ann Arbor, Michigan, USA. July 8-12, 2018.
57. Andrew Jie Zhou<sup>†</sup>, Jiyun Luo<sup>†</sup>, and Hui Yang. “DUMPLING: A Novel Dynamic Search Engine.” *Proceedings of the 38th Annual ACM SIGIR Conference 2015 (SIGIR 2015)*. Santiago, Chile. August 9-13, 2015.
58. Christopher Wing<sup>†</sup> and Hui Yang. “FitYou: Integrating Health Profiles to Real-Time Contextual Suggestion.” *Proceedings of the 37th Annual ACM SIGIR Conference (SIGIR 2014)*. Gold Coast, Australia. July 6-11, 2014.
59. Jiyun Luo<sup>†</sup>, Dongyi Guan<sup>†</sup>, and Hui Yang. “InfoLand: Information Lay-of-Land for Session Search.” *Proceedings of the 36th Annual ACM SIGIR Conference (SIGIR 2013)*. Dublin, Ireland. July 28 - August 1, 2013.
60. Hui Yang, Jamie Callan, and Stuart Shulman. “DURIAN: A demo for near-duplicate detection.” *Proceedings of the 6th National Conference on Digital Government Research (Dg.O 2006)*, San Diego, CA. May 21-24, 2006.

61. Sibo Dong<sup>†</sup>, Justin Goldstein<sup>†</sup>, and Grace Hui Yang. "SEINE: SEgment-based Indexing for NEural information retrieval." *Workshop on Reaching Efficiency in Neural Information Retrieval* (ReNeuIR), co-located with the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022). Madrid, Spain. July 15, 2022.
62. Mingze Wang<sup>†</sup>, Ziyang Zhang<sup>†</sup>, and Grace Hui Yang. "Incorporating Voice Instructions in Model-Based Reinforcement Learning for Self-Driving Cars." *Workshop on Machine Learning for Autonomous Driving*, co-located with the Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS 2021). Virtual conference. December 7-14, 2021.
63. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Reinforcement Learning Meets Information Seeking: Dynamic Search Challenge." *The 1st Workshop on Deep Reinforcement Learning for Information Retrieval* (DRL4IR), co-located with the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020). Xi'an, China. July 25-30, 2020.
64. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Corpus Compression for Deep Reinforcement Learning in Natural Language Environments." *The 1st Workshop on Deep Reinforcement Learning for Information Retrieval* (DRL4IR), co-located with the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020). Xi'an, China. July 25-30, 2020.
65. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Corpus Compression for Deep Reinforcement Learning in Natural Language Environments." *Deep Reinforcement Learning (Deep RL) workshop*, co-located with the Thirty-third Conference on Neural Information Processing Systems (NeurIPS 2019). Vancouver, Canada.
66. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Reinforcement Learning Meets Information Seeking: Dynamic Search Challenge." *Machine Learning Competitions for All (CiML) workshop*, co-located with the Thirty-third Conference on Neural Information Processing Systems (NeurIPS 2019). Vancouver, Canada.
67. Grace Hui Yang and Yue Yu.<sup>†</sup> "Use of Interpersonal Deception Theory in Counter Social Engineering." *The Second International Workshop on Rumors and Deception in Social Media Workshop*, in conjunction with the 2018 International Conference on Information and Knowledge Management (CIKM2018). Turin, Italy. October 22 – 26, 2018.
68. Chris A. Mattmann, Grace Hui Yang, Harshavardhan Manjunatha, Thamme Gowda N, Andrew Jie Zhou<sup>†</sup>, Jiyun Luo<sup>†</sup>, and Lewis John McGibbney. "Multimedia Metadata-based Forensics in Human Trafficking Web Data." *The Search and Exploration of X-Rated Information (SEXI) workshop*, in conjunction with the 9th ACM International Conference on Web Search and Data Mining (WSDM 2016). San Francisco, USA. Feb 22-26, 2016.
69. Sicong Zhang<sup>†</sup>, Hui Yang, and Lisa Singh. "Applying Epsilon-Differential Private Query Log Releasing Scheme to Document Retrieval." *In the 2nd International Workshop on Privacy-Preserving Information Retrieval Workshop* (PIR '15) in conjunction with SIGIR 2015. Santiago, Chile. August 9-13, 2015.
70. Dongyi Guan<sup>†</sup> and Hui Yang. "Query Aggregation in Session Search." *In the 3rd Workshop on Data-driven User Behavior Modeling and Mining from Social Media* (DUBMOD'14) in conjunction with CIKM 2014. Shanghai, China. November 3-7, 2014.
71. Hui Yang. "A Fragment-Based Similarity Measure for Concept Hierarchies and Ontologies." *In the 7th International Workshop on Exploiting Semantic Annotations in Information Retrieval* (ESAIR'14) in conjunction with CIKM 2014. Shanghai, China. November 3-7, 2014.
72. Sicong Zhang<sup>†</sup>, Hui Yang, and Lisa Singh. "Increased Information Leakage from Text." *In the 1st*

*International Workshop on Privacy-Preserving IR* (PIR 2014) co-located with ACM SIGIR 2014. Gold Coast, Australia.

- 73. Hui Yang. "Resolving Path Inconsistency and Task Specification in Taxonomy Construction." *In the People's Web Meets NLP workshop*, co-located with the 50th Annual Meeting of the Association for Computational Linguistics. Jeju, Korea. July 8-14, 2012.
- 74. Hui Yang. "Automatic and Interactive Browsing Hierarchy Construction for Scientific Publication Collections." *In Workshop on Mining Scientific Publications*, co-located with the ACM/IEEE Joint Conference on Digital Libraries. Washington, DC, USA. June 10-14, 2012.
- 75. Hui Yang and Jamie Callan. "Metric-Based Ontology Learning." *Workshop on Ontologies and Information Systems for the Semantic Web*, co-located with the 17th Conference on Information and Knowledge Management (CIKM 2008). Napa Valley, CA. Oct 26-30, 2008.
- 76. Hui Yang and Jamie Callan. "Learning the Distance Metric in a Personal Ontology." *Workshop on Ontologies and Information Systems for the Semantic Web*, co-located with the 17th Conference on Information and Knowledge Management (CIKM 2008). Napa Valley, CA. Oct 26-30, 2008.
- 77. Hui Yang and Jamie Callan. "Human-Guided Ontology Learning." *In Second Workshop on Human-Computer Interaction and Information Retrieval* (HCIR 2008). Microsoft Research, Redmond. Oct 23, 2008.

#### WORKSHOP PAPERS (NON-REFEREED)

- 78. Victor De Lima<sup>†</sup> and Grace Hui Yang. "Passage Query Methods for Retrieval and Reranking in Conversational Agents." *Proceedings of the 32nd Text REtrieval Conference* (TREC 2024). Rockville, MD, USA. November 18-22, 2024.
- 79. Quinn Patwardhan<sup>‡</sup> and Grace Hui Yang. "Sequencing Matters: A Generate-Retrieve-Generate Model for Building Conversational Agents." *Proceedings of the 32nd Text REtrieval Conference* (TREC 2023). Rockville, MD, USA. November 14-17, 2023.
- 80. Evangelos Kanoulas, Leif Azzopardi, and Grace Hui Yang. "Overview of the CLEF Dynamic Search Evaluation Lab 2018." *Proceedings of the Conferences and Labs of the Evaluation Forum* (CLEF 2018). Avignon, France. September 10-14, 2018.
- 81. Grace Hui Yang, Zhiwen Tang<sup>†</sup>, and Ian Soboroff. "TREC 2017 Dynamic Domain Track Overview." *Proceedings of the 26th Text REtrieval Conference* (TREC 2017). Gaithersburg, MD, USA. November 15-17, 2017.
- 82. Zhiwen Tang<sup>†</sup> and Grace Hui Yang. "Georgetown University at TREC 2017 Dynamic Domain Track." *Proceedings of the 26th Text REtrieval Conference* (TREC 2017). Gaithersburg, MD, USA. November 15-17, 2017.
- 83. Grace Hui Yang and Ian Soboroff. "TREC 2016 Dynamic Domain Track Overview." *Proceedings of the 25th Text REtrieval Conference* (TREC 2016). Gaithersburg, MD, USA. November 15-17, 2016.
- 84. Razieh Rahimi<sup>†</sup> and Grace Hui Yang. "An Investigation of Basic Retrieval Models for the Dynamic Domain Task." *Proceedings of the 25th Text REtrieval Conference* (TREC 2016). Gaithersburg, MD, USA. November 15-17, 2016.
- 85. Grace Hui Yang, John Frank, and Ian Soboroff. "TREC 2015 Dynamic Domain Track Overview." *Proceedings of the 24th Text REtrieval Conference* (TREC 2015). Gaithersburg, MD, USA. November 18-20, 2015.
- 86. Jiyun Luo<sup>†</sup> and Hui Yang. "Re-ranking via User Feedback: Georgetown University at TREC 2015 DD Track." *Proceedings of the 24th Text REtrieval Conference* (TREC 2015). Gaithersburg, MD, USA. November 18-20, 2015.



87. Jiyun Luo<sup>†</sup>, Xuchu Dong<sup>†</sup>, and Hui Yang. "Modeling Rich Interactions in Session Search - Georgetown University at TREC 2014 Session Track." *Proceedings of the 23rd Text REtrieval Conference* (TREC 2014). Gaithersburg, MD, USA. November 19-21, 2014.
88. Christopher Wing<sup>†</sup> and Hui Yang. "Query Refinement: Negation Detection and Proximity Learning - Georgetown at TREC 2014 Clinical Decision Support Track." *Proceedings of the 23rd Text REtrieval Conference* (TREC 2014). Gaithersburg, MD, USA. November 19-21, 2014.
89. Jiyun Luo<sup>†</sup> and Hui Yang. "Boosting Venue Page Rankings for Contextual Retrieval - Georgetown at TREC 2013 Contextual Suggestion Track." *Proceedings of the 22nd Text Retrieval Conference* (TREC 2013). Gaithersburg, MD, USA.
90. Sicong Zhang<sup>†</sup> and Hui Yang. "Applying the Query Change Retrieval Model on Session Search: Georgetown at TREC 2013 Session Track." *Proceedings of the 22nd Text Retrieval Conference* (TREC 2013). Gaithersburg, MD, USA.
91. Jiyun Luo<sup>†</sup> and Hui Yang. "Query Formulation for Prior Art Search - Georgetown University at CLEF-IP 2013." *Proceedings of the CLEF 2013 Conferences and Labs of the Evaluation Forum* (CLEF 2013), September 23-26, 2013, Valencia, Spain.
92. Dongyi Guan<sup>†</sup>, Hui Yang, and Nazli Goharian. "Effective Structured Query Formulation for Session Search." *Proceedings of the 21st Text Retrieval Conference* (TREC 2012). November 6-9. Gaithersburg, MD, USA.
93. Andrew Yates<sup>†</sup>, Dave DeBoer<sup>†</sup>, Hui Yang, Nazli Goharian, Steve Kunath, and Ophir Frieder. "(Not Too) Personalized Learning to Rank for Contextual Suggestion." *Proceedings of the 21st Text Retrieval Conference* (TREC 2012). November 6-9. Gaithersburg, MD, USA.
94. Hui Yang, Luo Si, and Jamie Callan. "Knowledge Transfer and Opinion Detection in the TREC2006 Blog Track." *Proceedings of the 15th Text REtrieval Conference* (TREC 2006), Gaithersburg, MD. November 14-17 2006.
95. Alex Hauptmann, Ming-Yu Chen, Mike Christel, C. Huang, W.-H. Lin, Toubin Ng, N. Papernick, A. Velivelli, Jun Yang, Rong Yan, Hui Yang, and H.D. Wactlar. "Confounded Expectations: Informedia at TRECVID 2004." *Proceedings of the 13th Text REtrieval Conference Video* (TRECVID 2004), Gaithersburg, MD. November 15-16 2004.
96. Tat-Seng Chua, Yunlong Zhao, Lekha Chaisorn, Chun-Keat Koh, Hui Yang, Huaxin Xu, and Qi Tian. "TREC 2003 Video Retrieval and Story Segmentation Task at NUS PRIS." *Proceedings of the 2003 Text REtrieval Conference Video* (TRECVID2003), Gaithersburg, MD. November 2003.
97. Hui Yang, Hang Cui, Min-Yen Kan, Mstislav Maslennikov, Long Qiu, and Tat-Seng Chua. "QUALIFIER in TREC-12 QA Main Task." *Proceedings of the 12th Text REtrieval Conference* (TREC 2003), Gaithersburg, MD. November 2003.
98. Hui Yang and Tat-Seng Chua. "The Integration of Lexical Knowledge and External Resources for Question Answering." *Proceedings of the 11th Text REtrieval Conference* (TREC 2002), Gaithersburg, MD. November 19-22 2002.

#### NEWSLETTER ARTICLES

- 2019 Grace Hui Yang. "Information retrieval and its sister disciplines." *SIGIR Forum* 53(2): 94-96 (2019)
- 2015 Grace Hui Yang and Ian Soboroff. "Privacy Preserving IR 2015: A SIGIR 2015 Workshop." *SIGIR Forum* 49(2): 98-101 (2015)
- 2014 Luo Si and Hui Yang. "PIR 2014 The First International Workshop on Privacy-Preserving IR: When Information Retrieval Meets Privacy and Security." *SIGIR Forum* 48(2): 83-88 (2014)
- 2012 Hui Yang. "Personal concept hierarchy construction." *SIGIR Forum* 46(1): 90-91 (2012)

## PROCEEDINGS EDITED

- 2024 Grace Hui Yang, Hongning Wang, Sam Han, Claudia Hauff, Guido Zuccon, Yi Zhang. *Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2024)*. Washington DC, USA, July 14-18, 2024.
- 2018 Dawei Song, Tie-Yan Liu, Le Sun, Peter Bruza, Massimo Melucci, Fabrizio Sebastiani, and Grace Hui Yang. *Proceedings of the 2018 ACM SIGIR International Conference on Theory of Information Retrieval (ICTIR 2018)*. Tianjin, China, September 14-17, 2018.
- 2017 Won-Kyung Sung, Hanmin Jung, Shuo Xu, Krisana Chinnasarn, Kazutoshi Sumiya, Jeonghoon Lee, Zhicheng Dou, Grace Hui Yang, Young-Guk Ha, and Seungbock Lee. *Proceedings of the 13th Asian Information Retrieval Societies Conference (AIRS 2017)*. Jeju island, Korea. November 22-24, 2017.
- 2014 Luo Si and Hui Yang. *Proceedings of the First Privacy-Preserving Information Retrieval Workshop (PIR 2014)*, co-located with the 37th Annual ACM SIGIR Conference 2014. Gold Coast, Australia. July 11, 2014.

## TUTORIAL TALKS (REFEREED)

- 2023 Lizi Liao, Grace Hui Yang, and Chirag Shah. "Proactive Conversational Agents in the Post-ChatGPT World." In *Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '23)*. 3452–3455. 2023
- 2023 Lizi Liao, Grace Hui Yang, and Chirag Shah. "Proactive Conversational Agents." In *Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining (WSDM '23)*. 1244–1247. 2023
- 2019 Grace Hui Yang. "Introduction to Information Retrieval." *The first Africa School on Machine Learning for Data Mining and Search (AFIRM 2019)*. Cape Town, South Africa. 2019.
- 2018 Grace Hui Yang and Sicong Zhang.<sup>†</sup> "Differential Privacy for Information Retrieval." *Proceedings of the Eleventh ACM International Conference on Web Search and Data Mining (WSDM '18)*. 777–778. 2018
- 2017 Grace Hui Yang and Sicong Zhang.<sup>†</sup> "Differential Privacy for Information Retrieval." *Proceedings of the ACM SIGIR International Conference on Theory of Information Retrieval (ICTIR '17)*. 325–326. 2017
- 2015 Hui Yang, Marc Sloan<sup>‡</sup>, and Jun Wang. "Dynamic Information Retrieval Modeling." *Proceedings of the Eighth ACM International Conference on Web Search and Data Mining (WSDM '15)*. 409–410. 2015
- 2014 Hui Yang, Marc Sloan<sup>‡</sup>, and Jun Wang. "Dynamic information retrieval modeling." *Proceedings of the 37th international ACM SIGIR conference on Research & development in information retrieval (SIGIR '14)*. 1290. 2014

## KEYNOTE SPEECHES

- 2021 Grace Hui Yang. "Artificial Intelligence vs. Information Retrieval." *The Deep Reinforcement Learning for Information Retrieval Workshop (DRL4IR '21)*, colocated with ACM SIGIR 2021.
- 2018 Grace Hui Yang. "Dynamic Search and Beyond." *The 24th Chinese Conference on Information Retrieval (CCIR 2018)*. Guilin, China, September 29, 2018.

## INVITED TALKS

2024.8.20

Sequencing Matters: A Generate-Retrieve-Generate Model for Conversational Information Retrieval Agents. Singapore Management University. Singapore.

2023.9.27 Re-classification of Information Seeking Tasks and Their Computational Solutions. Microsoft, Seattle, USA.

2023.2.13 ChatGPT: Its Inner Working, Present and Future. Georgetown University. Washington, D.C., USA.

2023.3.2 High-Quality Diversification for Task-Oriented Dialogue Systems. National University of Singapore. Singapore.

2023.4.22 ChatGPT: Its Inner Working, Present and Future. Thomas Jefferson High School. Fairfax, VA, USA.

2021.9.26 History and Future of Information Retrieval Research. American University, Washington D.C. Virtual.

2021.2.22 Domain Randomization for Interactive Information Retrieval. University of Glasgow, UK. Virtual.

2020.11.25 How to Make Good Research Arguments. RMIT University, Australia. Virtual.

2020.10.9 Corpus-Level Exploration for Interactive Agents. University of Massachusetts Amherst. Virtual.

2020.3.18 Corpus-Level Exploration for Interactive Agents. National University of Singapore. Singapore.

2019.12.9 Corpus-Level Exploration for Interactive Agents. Uber AI. San Francisco, CA, USA.

2019.11.10 Corpus-Level Compression for Dynamic Search. UC Berkeley. Berkeley, CA, USA.

2019.10.19 Term Visualization for Neural Information Retrieval. UC Berkeley. Berkeley, CA, USA.

2019.8.21 Visualizing Term Distribution for Neural Information Retrieval. Facebook Inc. San Francisco, CA, USA.

2018.11.7 Evaluating Dynamic Search. University of Maryland College Park. College Park, MD, USA.

2018.9.7 Dynamic Search. Virginia Tech. Falls Church, VA, USA.

2017.10.11 Privacy in Search. University of Delaware. Newark, DE, USA.

2016.11.30 Statistical Modeling of Information Seeking. University of Southern California. Los Angeles, CA, USA.

2016.9.9 Dynamic Information Retrieval Modeling. Carnegie Mellon University. Pittsburgh, PA, USA.

2016.3.16 Dynamic Information Retrieval Modeling. University of Amsterdam. Amsterdam, Netherlands.

2015.5.27 Dynamic Information Retrieval Modeling. York University. Toronto, Canada.

2015.4.9 Dynamic Information Retrieval Modeling. UC Berkeley. Berkeley, CA, USA.

2015.2.4 Dynamic Information Retrieval Modeling. Fudan University. Shanghai, China.

2014.10.18 Water Filling Modeling and The Cube Test, Tsinghua University. Beijing, China.

2014.10.18 Dynamic Information Retrieval Modeling, Tsinghua University. Beijing, China.

2014.10.19 Dynamic Information Retrieval Modeling, Peking University. Beijing, China.

2014.10.1 Dynamic Information Retrieval Modeling. University of Maryland College Park. College Park, MD, USA.

2012.3.7 Deriving Personalized Browsing Hierarchy from Text. Tsinghua University. Beijing, China.

2011.10.31 Build Your Own Ontology: A Human-Guided Machine Learning Approach. University of Delaware. Newark, DE, USA.

2011.10.14 Build Your Own Ontology: A Human-Guided Machine Learning Approach. Virginia Tech. Falls Church, VA, USA.

2011.4.25 Personal Ontology Learning. Boston University. Boston, MA, USA.

2011.3.11 Personal Ontology Learning. Massachusetts Institute of Technology. Cambridge, MA, USA.

2011.3.4 Personal Ontology Learning. Georgetown University. Washington, D.C., USA.

2008.9.5 Introduction to Ontology Learning. Xi'an Jiaotong University. Xi'an, China.

2008.8.15 Metric-based Ontology Learning. Chinese Academy of Science. Beijing, China.

2003,II,IO Question Answering and VideoQA. Georgia Institute of Technology. Atlanta, GA, USA.

#### PODCASTS & INTERVIEWS

2023 "ChatGPT & AI in Higher Education." Center for New Designs in Learning and Scholarship (CNDLS) podcast. Georgetown University.

2023 "Information Retrieval and Reinforcement Learning." *Discourse* podcast. Thomas Jefferson High School.

### Professional Facilitation

2024-present AgentIR: Agent-based Information Retrieval Workshop Series, co-located with SIGIR'24, and SIGIR'25.

2020-2023 Deep Reinforcement Learning for Information Retrieval Workshop Series, co-located with SIGIR '20, SIGIR '21, SIGIR '22, and CIKM '23.

2015-2017 TREC Dynamic Domain (DD) Tracks.

2014-2016 Privacy-Preserving Information Retrieval Workshop Series, co-located with SIGIR '14, SIGIR '15 and SIGIR '16.

### Teaching

#### INSTRUCTOR

2024-present COSC 5480 Large Language Models. Georgetown University. Spring 2024, Fall 2025.

2023-present COSC 3440 Deep Reinforcement Learning (Undergraduate). Georgetown University. Fall 2023.

2019-present COSC 6440/689 Deep Reinforcement Learning. Georgetown University. Spring 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023, Spring 2025.

2020-present COSC 5456/578 Foundations of Machine Learning (Previously named Statistical Machine Learning). Georgetown University. Spring 2020, Spring 2021, Spring 2023, Fall 2024.

2015-present COSC 878 Ph.D. Seminar on Large Scale Statistical Machine Learning. Georgetown University. Spring 2015, Spring 2020, Fall 2022.

2012-present COSC 688 Experimental Artificial Intelligence. Georgetown University. Spring 2012, Spring 2021, Spring 2022.

2020 CS 6212 Advanced Topics in Machine Learning. National University of Singapore. Spring 2020.

2015-2019 COSC 282 Big Data Analytics (Undergraduate). Georgetown University. Fall 2015, Spring 2017, Spring 2018, Spring 2019.

2011-2018 COSC 589 Web Search and Sensemaking. Georgetown University. Fall 2011, Spring 2014, Spring 2016, Spring 2017, Spring 2018.

2017 COSC 150 Advanced Programming (Undergraduate). Georgetown University. Fall 2017.

2012 COSC 488 Information Retrieval (Undergraduate). Georgetown University. Fall 2012.

2013 COSC 289 Multimedia Information Processing (Undergraduate). Georgetown University. Fall 2013.

2013 COSC 051 Computer Science I: C++ Programming (Undergraduate). Georgetown University. Spring 2013.

#### TEACHING ASSISTANT

2010

2008	Search Engine and Web Mining (Undergraduate). Carnegie Mellon University. Fall 2010.
2001-2004	Information Retrieval. Carnegie Mellon University. Spring 2008.
2003	Software Engineering (Undergraduate). National University of Singapore. Fall 2001, Fall 2002, Spring 2003, Fall 2003, Spring 2004.
2002	Artificial Intelligence (Undergraduate). National University of Singapore. Fall 2003.
2000-2001	Multimedia Technologies (Undergraduate). National University of Singapore. Spring 2002.
	Programming in Java (Undergraduate). National University of Singapore. Fall 2000, Spring 2001.

## Dissertation & Thesis Supervision

### PHD DISSERTATION

2025-	Shihao Wang. "Large Language Models." Georgetown University.
2023-	Xubo Lin. "Offline Reinforcement Learning for Conversational Agents." Georgetown University.
2024-	Victor De Lima. "Large Language Models for Conversational Agents." Georgetown University.
2016-2021	Zhiwen Tang. "Deep Reinforcement Learning for Dynamic Search." Georgetown University. Current Position: Associate Professor at <i>Yunnan University</i> .
2014-2018	Jiyun Luo. "Dynamic Information Retrieval Modeling." Georgetown University. Current Position: Researcher at <i>Pinterest</i> .
2012-2017	Sicong Zhang. "Privacy-Preserving Information Retrieval." Georgetown University. Current Position: Senior Software Engineer at <i>Google</i> .

### MS THESIS

2014-2016	Hongkai Wu. "Modeling Search Engine's Explorations in Dynamic Search: An Ontological Perspective." Georgetown University. Current Position: Technical Lead at <i>StockX</i> .
2012-2014	Jiyun Luo. "Prior Art Search and Its Evaluation." Georgetown University. Current Position: Researcher at <i>Pinterest</i> .
2011-2013	Dongyi Guan. "Structured Query Formulation and Result Organization for Session Search." Georgetown University. Current Position: Senior Software Engineer at <i>Tableau Software</i> .

### UNDERGRADUATE THESIS

2015-2017	Angela Yang. "Bandits Algorithms for Dynamic Search." Georgetown University. Current Position: Software Development Engineer at <i>Amazon</i> .
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### DISSERTATION & THESIS COMMITTEE

2023	Kornraphop Kawintiranon (Ken). PhD in Computer Science. Georgetown University.
2019	Shuo Liu. MS in Computer Science. Georgetown University.
2019	Sam Balthazard. Undergraduate thesis in Computer Science. Georgetown University.
2019	Anna Rempe. Undergraduate thesis in Computer Science. Georgetown University.
2016	Kevin Tian. Undergraduate thesis in Computer Science. Georgetown University.
2015	Andrew Hian-Cheon. Undergraduate thesis in Computer Science. Georgetown University.

2015 Janet Zhu. Undergraduate thesis in Computer Science. Georgetown University.  
 2014 Raimundo F. Dos Santos. PhD in Computer Science. Virginia Tech.

## Service

### SERVICE TO PROFESSIONAL COMMUNITY

#### Leadership

2024 General Co-Chair. ACM SIGIR Conference. Washington, D.C. July 2024.  
 2023 Co-Chair. ACM SIGIR Short Paper Track. Taipei, Taiwan. July 2023.  
 2022 Co-Chair. ACM SIGIR Perspectives Paper Track. Madrid, Spain. July 2022.  
 2017 Program Committee Co-Chair. Asia Information Retrieval Societies (AIRS). Jeju Island, Korea. November 2017.

2024 Co-Chair. ACM WWW Conference DEI Committee. May 2024.  
 2023 Co-Chair. ACM WSDM Conference Industry Track. February 2023.  
 2018 Co-Chair. ACM SIGIR Conference Demonstration Track. July 2018.  
 2018 Co-Chair. ACM ICTIR Conference Short Paper Track. September 2018.  
 2017 Co-Chair. ACM SIGIR Conference Workshop Track. July 2017.  
 2017 Co-Chair. ACM WSDM Conference Workshop Track. February 2017.  
 2017 Co-Chair. ACM ICTIR Conference Workshop Track. October 2017.  
 2016, 2020 Co-Chair. ACM ICTIR Conference Tutorial Track. September 2016 and September 2020.  
 2015 Co-Chair. ACM CIKM Conference Tutorial Track. October 2015.  
 2013-2014 Co-Chair. ACM CIKM Conference Doctor Consortium. July 2013 and July 2014.  
 2009 Chair. Dg.O Conference Student Research Program. May 2009.

#### Editorial boards

2022-present ACM Transactions on Information Systems (TOIS). Editorial board.  
 2014-2017 Information Retrieval Journal (IRJ). Editorial board.

#### Membership

*Note: I've lost track of the specific years I served on various conference program committees. Below, I've listed the committees I frequently serve on and the initial year of my service. There may have been years I didn't serve, either because I chaired a subprogram for the same conference or for other reasons. I apologize for any imprecision.*

2014- Senior Program Committee, ACM SIGIR.  
 2021- Senior Program Committee, AAAI.  
 2019- Senior Program Committee, ACM WSDM.  
 2019- Senior Program Committee, ACM WWW.  
 2019- Senior Program Committee, ACM CIKM.  
 2017- Senior Program Committee, ECIR.  
 2016- Area Chair/Senior Program Committee, ACL.

2012-2013 Program Committee, ACM SIGIR.  
 2016-2018 Program Committee, ACM WWW.

2015-	Program Committee, ACM ICTIR.
2014-	Program Committee, EACL.
2013-2018	Program Committee, ACM CIKM.
2013-2018	Program Committee, ACM WSDM.
2012	Program Committee, NAACL.
2021	Best Short Paper Committee, ACM CIKM.
2020	Best Short Paper Committee, ACM SIGIR.
2019	Best Paper Committee, ACM WSDM.
2013-	Funding Review Panel. National Science Foundation CISE IIS. 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022.
2015	Funding Review Panel. National Science Foundation CISE SaTC.
2012-	Journal reviewer. ACM Transactions on Information Systems (TOIS).
2013-	Journal reviewer. Information Processing & Management (IPM).
2020, 2022	Mentor, ACM SIGIR Doctoral Consortium.
2015, 2017	Mentor, ACM WSDM Doctoral Consortium.

#### SERVICE TO UNIVERSITY

2025	University Librarian Search Committee.
2020-present	Executive Committee of Honor Council, Georgetown University.
2022-present	Quantitative Reasoning and Data Literacy (QRDL) Curriculum Committee, Georgetown University.
2021-2022	Executive Committee of Graduate Studies (Grad Exco), Georgetown University.
2018-present	Honor Council. Georgetown University. 2018-2019, 2020-present.
2018-2019	Internal Grant Review, Georgetown University.

#### SERVICE TO DEPARTMENT(S)

##### Leadership

2022-present	Director of Graduate Studies. Department of Computer Science, Georgetown University.
2021-2022	Chair. Ph.D. Admission Committee. Department of Computer Science, Georgetown University.
2006-2011	Co-organizer. Information Retrieval Talk Series. Language Technologies Institute, Carnegie Mellon University.

##### Membership

2024-	Faculty Development Committee. Department of Computer Science, Georgetown University.
2011-	Graduate Admission Committee. Department of Computer Science, Georgetown University. 2011, 2012, 2013, 2016, 2018, 2023.
2018-2019	Chair's Advisory Committee. Department of Computer Science, Georgetown University.
2018	Non-Tenure Line Faculty Search Committee. Department of Computer Science, Georgetown University.

2017 Merit System Committee. Department of Computer Science, Georgetown University.  
 2016 Faculty Search Committee. Department of Linguistics, Georgetown University.  
 2016-2017 Graduate Admission Committee. Data Analytics Program, Georgetown University.

#### SERVICE TO SOCIETY

2024-present Judge. H2AI: AI for Healthcare Hackathon. *Georgetown University Medical School*.  
 2021-present Organizer. Artificial Intelligence Summer Camp for High School Students. Partnered with *Sidwell Friends School* (District of Columbia) and *Thomas Jefferson High School* (Virginia).  
 2023- Judge. Machine Learning Club. *Thomas Jefferson High School* in Arlington, Virginia.  
 2019 Instructor. African Summer School for Information Retrieval and Data Mining. Cape Town, South Africa.  
 2006-2010 Mentor. TechNights for local female K-12 students in Pittsburgh, PA. Part of Carnegie Mellon University's Women@SCS activities.