H. Halil Kilicoglu

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EDUCATION

2012	PhD, Computer Science, Concordia University, Montreal, QC, Canada
	Dissertation title: *Embedding Predications*
2000	MS, Computer Science, George Washington University, Washington, DC, USA
1997	BS, Computer Engineering, Istanbul Technical University, Istanbul, Turkey

RESEARCH/TEACHING POSITIONS

2019-Present   Associate Professor
University of Illinois Urbana-Champaign
School of Information Sciences, Champaign, IL

Affiliate
Center for Health Informatics (2020-Present)
The National Center for Supercomputing Applications (2021-Present)
Personalized Nutrition Initiative (2021-Present)
Division of Nutritional Sciences (2023-Present)
Beckman Institute for Advanced Science and Technology (2024-Present)
Interdisciplinary Health Sciences Institute (2025-Present)

2012–2019   Research Scientist
Lister Hill National Center for Biomedical Communications
U.S. National Library of Medicine
National Institutes of Health, Bethesda, MD

2007-2012   Research Assistant
Department of Computer Science and Software Engineering
Concordia University, Montreal, QC

2007-2012   NLP Researcher
Lister Hill National Center for Biomedical Communications
U.S. National Library of Medicine, Bethesda, MD

1999-2000   Teaching Assistant/Instructor
Department of Computer Science
George Washington University, Washington, DC

OTHER EMPLOYMENT

2002-2007   Senior Software Engineer

Lister Hill National Center for Biomedical Communications
U.S. National Library of Medicine
National Institutes of Health, Bethesda, MD

2000-2002   Senior Software Engineer
Aquilent, Inc., Laurel, MD

1999-2000   Database Administrator
Department of Computer Science
George Washington University, Washington, DC

1997-1998   Software Engineer
Sistek Yazilim (Sistek Software), Istanbul, Turkey

PUBLICATIONS

Peer-Reviewed Journal Articles

1. **(2025)** Gibong Hong, Veronica Hindle, Nadine M Veasley, Hannah D Holscher, **Halil Kilicoglu**. DiMB-RE: mining the scientific literature for diet-microbiome associations. *Journal of the American Medical Informatics Association*. 2025:ocaf054. doi: 10.1093/jamia/ocaf054.

2. **(2025)** Lan Jiang, Colby J Vorland, Xiangji Ying, Andrew W Brown, Joe D Menke, Gibong Hong, Mengfei Lan, Evan Mayo-Wilson, and **Halil Kilicoglu**. SPIRIT-CONSORT-TM: a corpus for assessing transparency of clinical trial protocol and results publications. *Scientific Data*. 2025;12:355. doi: 10.1038/s41597-025-04629-1.

3. **(2025)** Mingchen Li, **Halil Kilicoglu**, Hua Xu, Rui Zhang. BiomedRAG: A retrieval augmented large language model for biomedicine. *Journal of Biomedical Informatics*. 2025;162:104769. doi: 10.1016/j.jbi.2024.104769.

4. **(2024)** Maria Janina Sarol, Gibong Hong, Evan Guerra, and **Halil Kilicoglu**. Integrating Deep Learning Architectures for Enhanced Biomedical Relation Extraction: a Pipeline Approach. *Database (Oxford)*. 2024;baae079. doi: 10.1093/database/baae079.

5. **(2024)** Lan Jiang, Mengfei Lan, Joe D. Menke, Colby J. Vorland, and **Halil Kilicoglu**. Text classification models for assessing the completeness of randomized controlled trial publications based on CONSORT reporting guidelines. *Scientific Reports*. 2024. doi: 0.1038/s41598-024-72130-7.

6. **(2024)** Sarah Mullin, Robert McDougal, Kei-Hoi Cheung, **Halil Kilicoglu**, Amanda Beck, and Caroline J Zeiss. Chemical Entity Normalization for Successful Translational Development of Alzheimer's Disease and Dementia Therapeutics. *Journal of Biomedical Semantics*. 2024; 15:13. doi: 10.1186/s13326-024-00314-1.

7. **(2024)** Maria Janina Sarol, Shufan Ming, Shruthan Radhakrisna, Jodi Schneider, and **Halil Kilicoglu**. Assessing Citation Integrity in Biomedical Publications: Corpus Annotation and NLP Models. *Bioinformatics*. 2024;btae420. doi: 10.1093/bioinformatics/btae420.

8. **(2024)** Shufan Ming, Rui Zhang, and **Halil Kilicoglu**. Enhancing the coverage of SemRep using a relation classification approach. *Journal of Biomedical Informatics*. 2024; 155:104658. doi: 10.1016/j.jbi.2024.104658.

9. **(2024)** Mengfei Lan, Mandy Cheng, Linh Hoang, Gerben ter Riet, and **Halil Kilicoglu**. Automatic categorization of self-acknowledged limitations in randomized controlled trial publications. *Journal of Biomedical Informatics*, 2024; 104628. doi: 10.1016/j.jbi.2024.104628.

10. **(2024)** Yongkang Xiao, Yu Hou, Huixue Zhou, Gayo Diallo, Marcelo Fiszman, **Halil Kilicoglu**, William G Mantyh, and Rui Zhang. Repurposing Drugs and Non-pharmacological Interventions for Alzheimer's Diseases through Link Prediction on Biomedical Literature. *Scientific Reports*, 2024; 14(1):8693. doi:10.1038/s41598-024-58604-8.

11. **(2024)** Huixue Zhou, Robin Austin, Sheng-Chieh Lu, Greg Marc Silverman, Yuqi Zhou, **Halil Kilicoglu**, Hua Xu, and Rui Zhang. Complementary and Integrative Health Information in the literature: its lexicon and named entity recognition. *Journal of the American Medical Informatics Association,* 2024; 31(2): 426-434. doi: 10.1093/jamia/ocad216.

12. **(2024) Halil Kilicoglu,** Faezeh Ensan, Bridget McInnes, and Lucy Lu Wang. Semantics-enabled biomedical literature analytics. *Journal of Biomedical Informatics*, 2024; 104588. doi: 10.1016/j.jbi.2024.104588.

13. **(2024)** Colby J Vorland, Andrew W Brown, **Halil Kilicoglu**, Xiangji Ying, and Evan Mayo-Wilson. Publication of Results of Registered Trials With Published Study Protocols, 2011-2022. *JAMA Network Open*. 2024;7(1):e2350688. doi:10.1001/jamanetworkopen.2023.50688.

14. **(2023) Halil Kilicoglu**, Lan Jiang, Linh Hoang, Evan Mayo-Wilson, Christiaan H Vinkers, and Willem M Otte. Methodology reporting improved over time in 176,469 randomized controlled trials. *Journal of Clinical Epidemiology*. 2023; 162:19-28. doi: 10.1016/j.jclinepi.2023.08.004.

15. **(2023)** Sanya B Taneja, Tiffany J Callahan, Mary F Paine, Sandra L Kane-Gill, **Halil Kilicoglu**, Marcin P Joachimiak, and Richard D Boyce. Developing a Knowledge Graph for Pharmacokinetic Natural Product-Drug Interactions. *Journal of Biomedical Informatics*. 2023;140:104341. doi: doi.org/10.1016/j.jbi.2023.104341.

16. **(2023)** Shuang Wang, **Halil Kilicoglu,** and Jian Du. A comment-driven evidence appraisal approach to promoting research findings into practice when only uncertain evidence is available. *Health Research Policy and Systems*. 2023; 21(1): 25. doi: 10.1186/s12961-023-00969-9.

17. **(2022)** Dalton Schutte, Jake Vasilakes, Anu Bompelli, Yuqi Zhou, Marcelo Fiszman, Hua Xu, **Halil Kilicoglu**, Jeffrey R Bishop, Terrence Adam, and Rui Zhang. Discovering novel drug-supplement interactions using SuppKG generated from the biomedical literature. *Journal of Biomedical Informatics*. 2022; 131:104120, 2022. doi: 10.1016/j.jbi.2022.104120.

18. **(2022)** Robert Schulz, Adrian Barnett, René Bernard, Nicholas JL Brown, Jennifer A Byrne, Peter Eckmann, Małgorzata A Gazda, **Halil Kilicoglu**, Eric M Prager, Maia Salholz-Hillel, Gerben ter Riet, Timothy Vines, Colby J Vorland, Han Zhuang, Anita Bandrowski, and Tracey L Weissgerber. Is the future of peer review automated?. *BMC Research Notes*. 2022; 15(1):1-5. doi: 10.1186/s13104-022-06080-6.

19. **(2021) Halil Kilicoglu**, Graciela Rosemblat, Linh Hoang, Sahil Wadhwa, Zeshan Peng, Mario Malički, Jodi Schneider, and Gerben ter Riet. Toward Assessing Clinical Trial Publications for Reporting Transparency. *Journal of Biomedical Informatics*. 2021; 116: 103717. doi: 10.1016/j.jbi.2021.103717.

20. **(2021)** Tracey Weissgerber, Nico Riedel, **Halil Kilicoglu**, Cyril Labbé, Peter Eckmann, Gerben ter Riet, Jennifer Byrne, Guillaume Cabanac, Amanda Capes-Davis, Bertrand Favier, Shyam Saladi, Peter Grabitz, Alexandra Bannach-Brown, Robert Schulz, Sarah McCann, Rene Bernard, and Anita Bandrowski. Automated screening of COVID-19 preprints: Can we help authors to improve transparency & reproducibility? *Nature Medicine*. 2021; 27(1):6-7. doi: 10.1038/s41591-020-01203-7.

21. **(2021)** Tung Tran, Ramakanth Kavuluru, and **Halil Kilicoglu**. Attention-Gated Graph Convolutions for Extracting Drug Interaction Information from Drug Labels. *ACM Transactions on Computing for Healthcare*. 2021; 2(2):1-9. doi: 10.1145/3423209.

22. **(2021)** Rui Zhang, Dimitar Hristovski, Dalton Schutte, Andrej Kastrin, Marcelo Fiszman, and **Halil Kilicoglu**. Drug Repurposing for COVID-19 via Knowledge Graph Completion. *Journal of Biomedical Informatics*. 2021; 115:103696. doi: 10.1016/j.jbi.2021.103696.

23. **(2020) Halil Kilicoglu**, Graciela Rosemblat, Marcelo Fiszman, and Dongwook Shin. Broad-coverage biomedical relation extraction with SemRep. *BMC Bioinformatics*. 2020; 21:188. doi: 10.1186/s12859-020-3517-7.

24. **(2019)** Caroline J. Zeiss, Dongwook Shin, Brent Vander Wyk, Amanda P. Beck, Natalie Zatz, Charles A. Sneiderman, and **Halil Kilicoglu**. Menagerie: A text-mining tool to support animal-human translation in neurodegeneration research. *PLoS ONE*. 2019;14(12):e0226176. doi: 10.1371/journal.pone.0226176.

25. **(2019)** Graciela Rosemblat, Marcelo Fiszman, Dongwook Shin, and **Halil Kilicoglu**. Toward A Characterization of Apparent Contradictions in Biomedical Literature Using Context Analysis. *Journal of Biomedical Informatics*. 2019; 98:103275. doi: 10.1016/j.jbi.2019.103275. **Best Paper Selection, IMIA Yearbook of Medical Informatics, Section 10: Natural Language Processing**

26. **(2019)** Kerem Keserlioglu, **Halil Kilicoglu**, and Gerben ter Riet. Impact of peer review on discussion of study limitations and strength of claims in randomized trial reports: a before and after study. *Research Integrity and Peer Review*. 2019; 4(19):1-8. doi: 10.1186/s41073-019-0078-2.

27. **(2019) Halil Kilicoglu**, Zeshan Peng, Shabnam Tafreshi, Tung Tran, Graciela Rosemblat, and Jodi Schneider. Confirm or Refute?: A Comparative Study on Citation Sentiment Classification in Clinical Research Publications. *Journal of Biomedical Informatics*. 2019; 91:103123. doi: 10.1016/j.jbi.2019.103123.

28. **(2018)** Thomas C. Rindflesch, Catherine L. Blake, Michael J. Cairelli, Marcelo Fiszman, Caroline J. Zeiss, and **Halil Kilicoglu**. Investigating the role of interleukin-1 beta and glutamate in inflammatory bowel disease and epilepsy using discovery browsing. *Journal of Biomedical Semantics*. 2018; 9:25, doi: 10.1186/s13326-018-0192-y.

29. **(2018)** Lou Ann Scarton, Liqin Wang, **Halil Kilicoglu**, Margaret Jahries, and Guilherme del Fiol. Expanding vocabularies for complementary and alternative medicine therapies. *International Journal of Medical Informatics*. 2018; 121:64-74. doi: 10.1016/j.ijmedinf.2018.11.009

30. **(2018) Halil Kilicoglu**, Graciela Rosemblat, Mario Malički, and Gerben ter Riet. Automatic recognition of self-acknowledged limitations in clinical research literature. *Journal of the American Medical Informatics Association*. 2018; 25(7): 855-861. doi: 10.1093/jamia/ocy038.

31. **(2018) Halil Kilicoglu**, Asma Ben Abacha, Yassine Mrabet, Sonya E. Shooshan, Laritza Rodriguez, Kate Masterton, and Dina Demner-Fushman. Semantic annotation of consumer health questions. *BMC Bioinformatics*. 2018; 19:34. doi: 10.1186/s12859-018-2045-1.

32. **(2018) Halil Kilicoglu**. Biomedical text mining for research rigor and integrity: tasks, challenges, directions. *Briefings in Bioinformatics*. 2018; bbsx057. doi: 10.1093/bib/bbx057.

33. **(2017) Halil Kilicoglu**, Graciela Rosemblat, and Thomas C. Rindflesch. Assigning factuality values to semantic relations extracted from biomedical research literature. *PLoS ONE*. 2017; 12(7): e0179926. doi: 10.1371/journal.pone.0179926.

34. **(2017)** Thomas C. Rindflesch, Catherine Blake, Marcelo Fiszman, **Halil Kilicoglu**, Graciela Rosemblat, Jodi Schneider, and Caroline Zeiss. Informatics Support for Basic Research in Biomedicine. *The ILAR Journal*. 2017; 58 (1): 80–89. doi:10.1093/ilar/ilx004.

35. **(2017)** Ariel Deardorff, Kate Masterton, Kirk Roberts, **Halil Kilicoglu**, and Dina Demner-Fushman. A protocol‑driven approach to automatically finding authoritative answers to consumer health questions in online resources. *Journal of the Association for Information Science and Technology*. 2017;68(7): 1724-1736. doi: 10.1002/asi.23806.

36. **(2016) Halil Kilicoglu**, Graciela Rosemblat, Marcelo Fiszman, and Thomas C. Rindflesch. Sortal anaphora resolution to enhance relation extraction from biomedical literature. *BMC Bioinformatics*. 2016;17(1): 163. doi: 10.1186/s12859-016-1009-6.

37. **(2016) Halil Kilicoglu** and Dina Demner-Fushman. Bio-SCoRes: A Smorgasbord Architecture for Coreference Resolution in Biomedical Text. *PLoS ONE*. 2016; 11(3): e0148538. doi: 10.1371/journal.pone.0148538. **Best Paper Selection, IMIA Yearbook of Medical Informatics, Section 10: Natural Language Processing**

38. **(2015)** Kirk Roberts, Sonya E. Shooshan, Laritza Rodriguez, Swapna Abhyankar, **Halil Kilicoglu**, and Dina Demner-Fushman. The role of fine-grained annotations in supervised recognition of risk factors for heart disease from EHRs. *Journal of Biomedical Informatics*. 2015; 58(Suppl): S111-119. doi: 10.1016/j.jbi.2015.06.010.

39. **(2014)** Rui Zhang, Michael J. Cairelli, Marcelo Fiszman, Graciela Rosemblat, **Halil Kilicoglu**, Thomas C. Rindflesch, Serguei V. Pakhomov, and Genevieve B. Melton. Using semantic predications to uncover drug-drug interactions in clinical data. *Journal of Biomedical Informatics*. 2014; 49: 134-147. doi: 10.1016/j.jbi.2014.01.004.

40. **(2014)** Guocai Chen, Michael J. Cairelli, **Halil Kilicoglu**, Dongwook Shin, and Thomas C. Rindflesch. Augmenting Microarray Data with Literature-Based Knowledge to Enhance Gene Regulatory Network Inference. *PLoS Computational Biology*. 2014; 10(6): e1003666. doi: 10.1371/journal.pcbi.1003666.

41. **(2014)** Rui Zhang, Michael J. Cairelli, Marcelo Fiszman, **Halil Kilicoglu**, Thomas C. Rindflesch, Serguei V. Pakhomov, and Genevieve B. Melton. Exploiting Literature-derived Knowledge and Semantics to Identify Potential Prostate Cancer Drugs. *Cancer Informatics*. 2014; 13(Suppl 1): 103-111. doi: 10.1016/j.jbi.2014.01.004.

42. **(2013)** Graciela Rosemblat, Dongwook Shin, **Halil Kilicoglu**, Charles Sneiderman, and Thomas C. Rindflesch. A methodology for extending domain coverage in SemRep. *Journal of Biomedical Informatics*. 2013; 46(6): 1099-1107. doi: 10.1016/j.jbi.2013.08.005.

43. **(2012) Halil Kilicoglu**, Dongwook Shin, Marcelo Fiszman, Graciela Rosemblat, and Thomas C. Rindflesch. SemMedDB: a PubMed-scale repository of biomedical semantic predications. *Bioinformatics*. 2012; 28(23): 3158-3160. doi: 10.1093/bioinformatics/bts591.

44. **(2012) Halil Kilicoglu** and Sabine Bergler. Biological event composition. *BMC Bioinformatics*. 2012; 13(Suppl 11): S7. doi: 10.1186/1471-2105-13-S11-S7.

45. **(2011) Halil Kilicoglu**, Graciela Rosemblat, Marcelo Fiszman, and Thomas C. Rindflesch. Constructing a semantic predication gold standard from the biomedical literature. *BMC Bioinformatics*. 2011; 12:486. doi: 10.1186/1471-2105-12-486.

46. **(2011)** Yoshinobu Kano, Jari Björne, Filip Ginter, Tapio Salakoski, Ekaterina Buyko, Udo Hahn, K. Bretonnel Cohen, Karin Verspoor, Christophe Roeder, Lawrence E. Hunter, **Halil Kilicoglu**, Sabine Bergler, Sofie Van Landeghem, Thomas Van Parys, Yves Van de Peer, Makoto Miwa, Sophia Ananiadou, Mariana Neves, Alberto Pascual-Montano, Arzucan Özgür, Dragomir R Radev, Sebastian Riedel, Rune Sætre, Hong-Woo Chun, Jin-Dong Kim, Sampo Pyysalo, Tomoko Ohta and Jun'ichi Tsujii. U-Compare bio-event meta service: compatible BioNLP event extraction services. *BMC Bioinformatics*. 2011; 12:481. doi: 10.1186/1471-2105-12-481.

47. **(2011) Halil Kilicoglu** and Sabine Bergler. Effective bio-event extraction using trigger words and syntactic dependencies. *Computational Intelligence*. 2011; 27(4): 583-609. doi: 10.1111/j.1467-8640.2011.00401.x.

48. **(2011)** Thomas C. Rindflesch, **Halil Kilicoglu**, Marcelo Fiszman, Graciela Rosemblat, and Dongwook Shin. Semantic MEDLINE: An advanced information management application for biomedicine. *Information Services & Use*. 2011; 31(1-2): 15-21. doi: 10.3233/ISU-2011-0627.

49. **(2010)** Alla Keselman, Graciela Rosemblat, **Halil Kilicoglu**, Marcelo Fiszman, Honglan Jin, Dongwook Shin, and Thomas C. Rindflesch. Adapting semantic natural language processing technology to address information overload in influenza epidemic management. *Journal of the Association for Information Science and Technology*. 2010; 61(12): 2531-2543. doi: 10.1002/asi.21414.

50. **(2009)** Marcelo Fiszman, Dina Demner-Fushman, **Halil Kilicoglu**, and Thomas C. Rindflesch. Automatic summarization of MEDLINE citations for evidence-based medical treatment: A topic-oriented evaluation. *Journal of Biomedical Informatics*. 2009; 42(5): 801-813. Doi: 10.1016/j.jbi.2008.10.002.

51. **(2009) Halil Kilicoglu**, Dina Demner-Fushman, Thomas C. Rindflesch, Nancy L. Wilczynski, and R. Brian Haynes. Toward automatic recognition of scientifically rigorous clinical research evidence. *Journal of the American Medical Informatics Association*. 2009; 16(1): 25-31. doi : 10.1197/jamia.M2996.

52. **(2008) Halil Kilicoglu** and Sabine Bergler. Recognizing speculative language in biomedical research articles: a linguistically motivated perspective. *BMC Bioinformatics*. 2008; 9 (Suppl 1): S10. doi: 10.1186/1471-2105-9-S11-S10.

53. **(2006)** Marco Masseroli, **Halil Kilicoglu**, Francois-Michel Lang, and Thomas C. Rindflesch. Argument-predicate distance as a filter for enhancing precision in extracting predications on the genetic etiology of disease. *BMC Bioinformatics*. 2006; 7(1): 291. doi: 10.1186/1471-2105-7-291.

54. **(2006)** Susanne M. Humphrey, Willie J. Rogers, **Halil Kilicoglu**, Dina Demner-Fushman, and Thomas C. Rindflesch. Word sense disambiguation by selecting the best semantic type based on Journal Descriptor Indexing: Preliminary experiment. *Journal of the Association for Information Science and Technology*. 2006; 57(1):96-113. doi: 10.1002/asi.20257.

Peer-Reviewed Conference/Workshop Publications in Proceedings

55. **(2025)** M Janina Sarol, Jodi Schneider, and **Halil Kilicoglu**. Automatic Identification of Citation Distortions in Biomedical Text: A Case Study. ASIS&T Annual Meeting [accepted].

56. **(2025)** M Janina Sarol and **Halil Kilicoglu**. Investigating Information Propagation in Biomedical Literature through Citations: A Case Study. In Proceedings of the *International Conference on Scientometrics and Informetrics (ISSI 2025)*, Yerevan, Armenia.

57. **(2025)** Shufan Ming, Yue Guo, and **Halil Kilicoglu**. Towards knowledge-guided biomedical lay summarization using large language models. In *Proceedings of the Second Workshop on Patient-Oriented Language Processing (CL4Health @ NAACL),* pages 285-297, Albuquerque, NM, USA. Association for Computational Linguistics.

58. **(2024)** Joe D Menke, **Halil Kilicoglu**, and Neil Smalheiser. Publication Type Tagging using Transformer Models and Multi-Label Classification. *AMIA Annual Symposium* 2024, San Francisco, CA.

59. **(2024)** Mengfei Lan, Lecheng Zheng, Shufan Ming, and **Halil Kilicoglu**. Multi-label Sequential Sentence Classification via Large Language Model. In *Findings of the Association for Computational Linguistics: EMNLP 2024*, pages 16086–16104, Miami, Florida, USA. Association for Computational Linguistics.

60. **(2024)** Zhiwen You, Shruthan Radhakrishna, Shufan Ming, and **Halil Kilicoglu**. UIUC_BioNLP at BioLaySumm: An Extract-then-Summarize Approach Augmented with Wikipedia Knowledge for

Biomedical Lay Summarization. In *Proceedings of the 23rd Workshop on Biomedical Natural Language Processing,* pages 132-143, Bangkok, Thailand. Association for Computational Linguistics.

61. **(2023)** Sullam Jeoung, Jana Diesner, and **Halil Kilicoglu**. Examining the Causal Effect of First Names on Language Models: The Case of Social Commonsense Reasoning. In *Proceedings of the 3rd Workshop on Trustworthy Natural Language Processing (TrustNLP 2023)*, pages 61–72, Toronto, Canada. Association for Computational Linguistics. **Best Paper Award**

62. **(2023)** Yiren Liu and **Halil Kilicoglu**. Commonsense-Aware Prompting for Controllable Empathetic Dialogue Generation. *AAAI'23 Workshop on Knowledge Augmented Methods for NLP.*

63. **(2023)** Yongkang Xiao, Yu Hou, Huixue Zhou, Gayo Diallo, Marcelo Fiszman, Julia Wolfson, **Halil Kilicoglu**, You Chen, Hua Xu, William G. Mantyh, and Rui Zhang. Repurposing Drugs for Alzheimer's Diseases through Link Prediction on Biomedical Literature. *IEEE ICHI 2023 Workshop on AI for Pharmaceutical Discovery and Development (AIPHA 2023).*

64. **(2022)** Linh Hoang, Yingjun Guan, and **Halil Kilicoglu**. Methodological information extraction from randomized controlled trial publications. *AMIA Annual Symposium 2022*, Washington, DC, 2022. American Medical Informatics Association.

65. **(2022)** Linh Hoang, Lan Jiang, and **Halil Kilicoglu**. Investigating the impact of weakly supervised data on text mining models of publication transparency: a case study on randomized controlled trials, *AMIA Informatics Summit 2022*, pages 254-263, Chicago, IL, 2022. American Medical Informatics Association.

66. **(2021)** Haoyang Liu, M Janina Sarol, and **Halil Kilicoglu**. UIUC_BioNLP at SemEval-2021 Task 11: a cascade of neural models for structuring scholarly NLP contributions. In *Proceedings of the 15th International Workshop on Semantic Evaluation (SemEval-2021)*, pages 377–386, Online. Association for Computational Linguistics. doi: 20.18653/v1/2021.semeval-1.45. **Best System Paper Award**

67. **(2019)** Mehmet G. Bakal, **Halil Kilicoglu**, and Ramakanth Kavuluru. Non-Negative Matrix Factorization for Drug Repositioning: Experiments with the repoDB Dataset. *AMIA Annual Symposium 2019*, pages 238-247, Washington, DC, 2022. American Medical Informatics Association.

68. **(2017)** Yassine Mrabet, **Halil Kilicoglu**, and Dina Demner-Fushman. TextFlow: A text similarity measure based on continuous sequences. In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 763-772, Vancouver, Canada, 2017. Association for Computational Linguistics. doi: 10.18653/v1/P17-1071.

69. **(2016) Halil Kilicoglu**. Inferring implicit causal relationships in biomedical literature. In P*roceedings of the 15th Workshop on Biomedical Natural Language Processing,* pages 46-55, Berlin, Germany, 2016. Association for Computational Linguistics. doi: 10.18653/v1/W16-2906.

70. **(2016)** Yassine Mrabet, **Halil Kilicoglu**, Kirk Roberts, and Dina Demner-Fushman. Combining open-domain and biomedical knowledge for topic recognition in consumer health questions. In *AMIA Annual Symposium Proceedings*, volume 2016, pages 914-923, Chicago, IL, 2016. American Medical Informatics Association. **Distinguished Paper Award**

71. **(2016)** Yassine Mrabet, Pavlos Vougiouklis, **Halil Kilicoglu**, Claire Gardent, Dina Demner-Fushman, Jonathon Hare, and Elena Simperl. Aligning texts and knowledge bases with semantic sentence simplification. In *Proceedings of the 2nd International Workshop on Natural Language Generation and the Semantic Web (WebNLG 2016)*, pages 29-36, Edinburgh, Scotland, 2016. Association for Computational Linguistics.

72. **(2016)** Yassine Mrabet, **Halil Kilicoglu**, and Dina Demner-Fushman. Unsupervised ranking of knowledge bases for named entity recognition. In *Proceedings of the Twenty-Second European Conference on Artificial Intelligence (ECAI'16)*, page 1248-1255, The Hague, The Netherlands, 2016. IOS Press. doi: 10.3233/978-1-61499-672-9-1248.

73. **(2016) Halil Kilicoglu**, Asma Ben Abacha, Yassine Mrabet, Kirk Roberts, Laritza Rodriguez, Sonya Shooshan, and Dina Demner-Fushman. Annotating named entities in consumer health questions. In *Proceedings of the Tenth International Conference on Language Resources and Evaluation (LREC'16)*, pages 3325-3332, Portorož, Slovenia, 2016. European Language Resources Association.

74. **(2015) Halil Kilicoglu**, Graciela Rosemblat, Michael Cairelli, and Thomas C Rindflesch. A compositional interpretation of biomedical event factuality. In *Proceedings of the Second Workshop on Extra-Propositional Aspects of Meaning in Computational Semantics (ExProM 2015)*, pages 22-31, Denver, CO, 2015. Association for Computational Linguistics. doi: 10.3115/v1/W15-1303.

75. **(2015) Halil Kilicoglu**, Marcelo Fiszman, Kirk Roberts, and Dina Demner-Fushman. An ensemble method for spelling correction in consumer health questions. In *AMIA Annual Symposium Proceedings*, volume 2015, pages 727-736, Washington, DC, 2015. American Medical Informatics Association.

76. **(2014) Halil Kilicoglu** and Dina Demner-Fushman. Coreference resolution for structured drug product labels. In *Proceedings of the 2014 Workshop on Biomedical Natural Language Processing*, pages 45-53, Baltimore, MD, 2014. Association for Computational Linguistics. doi: 10.3115/v1/W14-3407.

77. **(2014)** Kirk Roberts, **Halil Kilicoglu**, Marcelo Fiszman, and Dina Demner-Fushman. Decomposing consumer health questions. In *Proceedings of the 2014 Workshop on Biomedical Natural Language Processing*, pages 29-37, Baltimore, MD, 2014. Association for Computational Linguistics. doi: 10.3115/v1/W14-3405.

78. **(2014)** Kirk Roberts, **Halil Kilicoglu**, Marcelo Fiszman, and Dina Demner-Fushman. Automatically classifying question types for consumer health questions. In *AMIA Annual Symposium Proceedings*, volume 2014, pages 1018-1027, Washington, DC, 2014. American Medical Informatics Association.

79. **(2014)** Kirk Roberts, Kate Masterton, Marcelo Fiszman, **Halil Kilicoglu**, and Dina Demner-Fushman. Annotating question decomposition on complex medical questions. In *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14)*, Reykjavik, Iceland, 2014. European Language Resources Association.

80. **(2014)** Kirk Roberts, Kate Masterton, Marcelo Fiszman, **Halil Kilicoglu**, and Dina Demner-Fushman. Annotating question types for consumer health questions. In *LREC Workshop on Building and Evaluating Resources for Health and Biomedical Text Processing (BioTxtM 2014)*, Reykjavik, Iceland, 2014. European Language Resources Association.

81. **(2013) Halil Kilicoglu**, Marcelo Fiszman, and Dina Demner-Fushman. Interpreting consumer health questions: the role of anaphora and ellipsis. In *Proceedings of the 2013 Workshop on Biomedical Natural Language Processing*, pages 54-62, Sofia, Bulgaria, 2013. Association for Computational Linguistics.

82. **(2013)** Rashmi Mishra, Guilherme Del Fiol, **Halil Kilicoglu**, Siddhartha Jonnalagadda, and Marcelo Fiszman. Automatically extracting clinically useful sentences from UpToDate to support clinicians' information needs. In *AMIA Annual Symposium Proceedings*, volume 2013, pages 987-992, Washington, DC, 2013. American Medical Informatics Association. Distinguished Student Paper Nominee.

83. **(2011) Halil Kilicoglu** and Sabine Bergler. Adapting a general semantic interpretation approach to biological event extraction. In *Proceedings of BioNLP Shared Task 2011 Workshop*, pages 173-182, Portland, OR, 2011. Association for Computational Linguistics.

84. **(2010) Halil Kilicoglu**, Marcelo Fiszman, Graciela Rosemblat, Sean Marimpietri, and Thomas C Rindflesch. Arguments of nominals in semantic interpretation of biomedical text. In *Proceedings of the 2010 Workshop on Biomedical Natural Language Processing*, pages 46-54, Uppsala, Sweden, 2010. Association for Computational Linguistics.

85. **(2010) Halil Kilicoglu** and Sabine Bergler. A high-precision approach to detecting hedges and their scopes. In *Proceedings of the Fourteenth Conference on Computational Natural Language Learning (CONLL 2010)*, pages 70-77, Uppsala, Sweden, 2010. Association for Computational Linguistics.

86. **(2010)** Marcelo Fiszman, Bruce E Bray, Dongwook Shin, **Halil Kilicoglu**, Glen C Bennett, Olivier Bodenreider, and Thomas C Rindflesch. Combining relevance assignment with quality of the evidence to support guideline development. In *Proceedings of MEDINFO 2010*, page 709-713, Cape Town, South Africa, 2010. International Medical Informatics Association.

87. **(2009) Halil Kilicoglu** and Sabine Bergler. Syntactic dependency based heuristics for biological event extraction. In *Proceedings of Natural Language Processing in Biomedicine (BioNLP) NAACL 2009 Workshop*, pages 119-127, Boulder, CO, 2009. Association for Computational Linguistics.

88. **(2008) Halil Kilicoglu**, Marcelo Fiszman, Alejandro Rodriguez, Dongwook Shin, Anna Ripple, and Thomas C Rindflesch. Semantic MEDLINE: a web application to manage the results of PubMed searches. In *Proceedings of the Third International Symposium on Semantic Mining in Biomedicine (SMBM 2008)*, pages 69-76, Turku, Finland, 2008.

89. **(2008) Halil Kilicoglu** and Sabine Bergler. Recognizing speculative language in biomedical research articles: A linguistically motivated perspective. In *Proceedings of the Workshop on Current Trends in Biomedical Natural Language Processing*, pages 46-53, Columbus, OH, 2008. Association for Computational Linguistics.

90. **(2007)** Caroline B Ahlers, Dimitar Hristovski, **Halil Kilicoglu**, and Thomas C Rindflesch. Using the literature-based discovery paradigm to investigate drug mechanisms. In *AMIA Annual Symposium Proceedings*, volume 2007, pages 6-10, Chicago, IL, 2007. American Medical Informatics Association. **Distinguished Paper Award**

91. **(2006)** Marcelo Fiszman, Thomas C Rindflesch, and **Halil Kilicoglu**. Summarizing drug information in Medline citations. In *AMIA Annual Symposium Proceedings*, volume 2006, pages 254-258, Washington, DC, 2006. American Medical Informatics Association.

92. **(2005)** Thomas C Rindflesch, Serguei V Pakhomov, Marcelo Fiszman, **Halil Kilicoglu**, and Vincent R Sanchez. Medical facts to support inferencing in natural language processing. In *AMIA Annual Symposium Proceedings*, volume 2005, pages 634-638, Washington, DC, 2005. American Medical Informatics Association.

93. **(2004)** Marcelo Fiszman, Thomas C. Rindflesch, and **Halil Kilicoglu**. Abstraction summarization for managing the biomedical research literature. In *Proceedings of the HLT-NAACL Workshop on Computational Lexical Semantics*, pages 76-83, Boston, MA, 2004. Association for Computational Linguistics.

94. **(2004)** Bisharah Libbus, **Halil Kilicoglu**, Thomas C Rindflesch, James G Mork, and Alan R Aronson. Using natural language processing, LocusLink and the Gene Ontology to compare OMIM to MEDLINE. In *HLT-NAACL 2004 Workshop: Linking Biological Literature, Ontologies and Databases*, pages 69-76, Boston, MA, 2004. Association for Computational Linguistics.

95. **(2004)** Marcelo Fiszman, Thomas C Rindflesch, and **Halil Kilicoglu**. Summarization of an online medical encyclopedia. In *Proceedings of MEDINFO 2004*, pages 506-510, San Francisco, CA, 2004. IOS Press.

96. **(2003)** Marcelo Fiszman, Thomas C Rindflesch, and **Halil Kilicoglu**. Integrating a hypernymic proposition interpreter into a semantic processor for biomedical texts. In *AMIA Annual Symposium Proceedings*, pages 239-243, Washington, DC, 2003. American Medical Informatics Association.

97. **(2003)** Thomas C Rindflesch, Bisharah Libbus, Dimitar Hristovski, Alan R Aronson, and **Halil Kilicoglu**. Semantic relations asserting the etiology of genetic diseases. In *AMIA Annual Symposium Proceedings*, pages 554-558, Washington, DC, 2003. American Medical Informatics Association.

Invited Book Chapters

98. **(2024)** Rui Zhang, Andrej Kastrin, Dimitar Hristovski, Marcelo Fiszman, and **Halil Kilicoglu**. NLP Applications—Biomedical Literature. In Hua Xu, Dina Demner-Fushman (eds), *Natural Language Processing in Biomedicine: A Practical Guide*. 2024, pages 351-395. Springer, Cham. doi: 10.1007/978-3-031-55865-8_13.

Shared Task Papers

99. **(2023)** M. Janina Sarol, Gibong Hong, and **Halil Kilicoglu**. UIUC-BioNLP @ BioCreative VIII BioRED Track. *BioCreative VIII Shared Task on Biomedical Relation Extraction.*

100. **(2018)** Tung Tran, Ramakanth Kavuluru, and **Halil Kilicoglu**. A Multi-task Learning Framework for Extracting Drugs and Their Interactions from Drug Labels. *Text Analysis Conference (TAC) Shared Task on Drug-Drug Interactions,* Gaithersburg, MD.

101. **(2015) Halil Kilicoglu** and Willie J. Rogers. Hybrid System for Extracting Chemical-Disease Relationships from Scientific Literature. *BioCreative V Shared Task on Chemical-Disease Relation Extraction*, Eugene, OR.

102. **(2014)** Kirk Roberts, Sonya E. Shooshan, Laritza Rodriguez, Swapna Abhyankar, **Halil Kilicoglu**, and Dina Demner-Fushman. Machine Learning Methods for Detecting Risk Factors for Heart Disease in EHRs. *i2b2/UTHealth 2014 Shared Task*, Washington, DC. **Top-ranked shared task system**

103. **(2012)** Sabine Rosenberg, **Halil Kilicoglu**, and Sabine Bergler. CLaC Labs Processing Modality and Negation Working Notes for QA4MRE (Question Answering for Machine Reading Evaluation) Pilot Task at CLEF 2012. *CLEF 2012*, Rome, Italy. **Top-ranked shared task system**

Abstract/Poster/Panel Presentations

104. **(2025)** Sylvey Lin, Joe D Menke, Arthur M Holt, **Halil Kilicoglu**, and Neil R Smalheiser. Section Header Normalization in Biomedical Articles using Transformer Models. *AMIA Annual Symposium 2025* [accepted].

105. **(2025)** Robin R Austin, Marcelo Fiszman, Cui Tao, Rui Zhang, and **Halil Kilicoglu**. Integrative and Whole Person Health in the Digital Age: The Power of Informatics. *AMIA Annual Symposium 2025* [accepted].

106. **(2025)** Lan Jiang, Xiangji Ying, Mengfei Lan, Andrew Brown, Colby Vorland, Evan Mayo-Wilson, and **Halil Kilicoglu**. Leveraging Large Language Models for Assessing the Adherence of Randomized Controlled Trial Publications to Reporting Guidelines. *Peer Review Congress 2025*, Chicago, IL.

107. **(2025)** M Janina Sarol, Jodi Schneider, and **Halil Kilicoglu**. Leveraging Large Language Models for Detecting Citation Quotation Errors in Biomedical Literature. *Peer Review Congress 2025*, Chicago, IL.

108. **(2025)** Xiangji Ying, Colby Vorland, Kiran Ninan, Jean-Pierre Oberste, Andrew Brown, Riaz Qureshi, Sirui Zhang, Nicholas DeVito, Matthew Page, Ian Saldanha, **Halil Kilicoglu**, and Evan Mayo-Wilson. Using GPT to Identify Changes in Clinical Trial Outcomes Registered on ClinicalTrials.gov. *Peer Review Congress 2025*, Chicago, IL.

109. **(2025)** Joe Menke, Mengfei Lan, and **Halil Kilicoglu**. A Comparison of Self-Acknowledged Limitations with Risk of Bias Assessments. *Peer Review Congress 2025*, Chicago, IL.

110. **(2025)** Evan Guerra and **Halil Kilicoglu**. Extracting Smell Disorders as Early Indicators of Neurodegenerative Diseases Using Natural Language Processing. *Association for Chemoreception Sciences Annual Meeting*, Bonita Springs, FL.

111. **(2024)** Joe D Menke, Lan Jiang, Gibong Hong, Mengfei Lan, and **Halil Kilicoglu**. Natural language processing for assessing transparency of clinical trial publications. *AMIA2024 NLP Working Group Pre-Symposium*, San Francisco, CA.

112. **(2024)** M. Janina Sarol, Shufan Ming, Shruthan Radhakrishna, Yashwanth Narsupalli, Shruthan Radhakrishna, Jodi Schneider, and **Halil Kilicoglu**. Towards automatic detection of citation quotation errors: An open dataset and machine learning models. *World Conference on Research Integrity (WCRI 2024)*, Athens, Greece.

113. **(2023)** Minu Mathew, Chen Wang, Luigi Marini, Lan Jiang, and **Halil Kilicoglu**. RCTCheck : Assessing Transparency and Rigor of Randomized Clinical Trials. *1st Annual Conference of the US Research Software Engineer Association (US-RSE 2023)*, Chicago, IL.

114. **(2022)** **Halil Kilicoglu**, Linh Hoang, Willem M. Otte, and Christiaan H. Vinkers. A Large-Scale Analysis of Methodology Reporting in Randomized Controlled Trials according to CONSORT Guidelines. *World Conference on Research Integrity (WCRI 2022)*, Cape Town, South Africa.

115. **(2021)** Mengfei Lan and **Halil Kilicoglu**. Quality Over Quantity: Assessing the Effect of Corpus Quality and Size on Rhetorical Classification of Biomedical Abstracts. *Automatic Knowledge Base Construction Conference (AKBC 2021) SciNLP Workshop*, Online.

116. **(2021)** Sarah Mullin, Robert McDougal, Kei-Hoi Cheung, **Halil Kilicoglu**, Amanda Beck, and Caroline Zeiss. Chemical Entity Normalization for Successful Translational Development of Alzheimer's Disease and Dementia Therapeutics. *ISMB/ECCB 2021 Bio-Ontologies Workshop*; 2021, Online.

117. **(2020)** **Halil Kilicoglu**, Linh Hoang, and Sahil Wadhwa. Identifying sample size characteristics in clinical trial publications. *AMIA Annual Symposium Proceedings*, *volume 2020*, page 1809, 2020. American Medical Informatics Association. Online.

118. **(2020)** Peter Eckmann, Nico Riedel, **Halil Kilicoglu**, Cyril Labbe, Peter Eckmann, Gerben ter Riet, Jennifer Byrne, Guillaume Cabanac, Amanda Capes-Davis, Bertrand Favier, Shyam Saladi, Peter Grabitz, Alexandra Bannach-Brown, Robert Schulz, Sarah McCann, Rene Bernard, Anita Bandrowski, and Tracey Weissgerber. Automatic Screening of COVID-19 preprints: Can we help authors to improve transparency and reproducibility? *AIMOS (Association for Interdisciplinary Meta-research and Open Science) 2020 Annual Meeting*. Online.

119. **(2019)** Dimitar Hristovski, Andrej Kastrin, and **Halil Kilicoglu**. SemMedDB-neo4j: a graph database of biomedical semantic relations. In *AMIA Annual Symposium Proceedings*, volume 2019, page 1609, Washington, DC, 2019. American Medical Informatics Association.

120. **(2019)** **Halil Kilicoglu**, Graciela Rosemblat, Zeshan Peng, Mario Malički, Jodi Schneider, and Gerben ter Riet. Annotating Clinical Trial Publications to Assess CONSORT Adherence: A Feasibility Study. *World Conference on Research Integrity (WCRI 2019)*, Hong Kong, China.

121. **(2018)** **Halil Kilicoglu**, Aurélie Névéol, Timothy W Clark, Hua Xu, and Neil Smalheiser. Methods and tools to enhance rigor and reproducibility of biomedical research. In *AMIA Annual Symposium Proceedings*, volume 2018, pages 67-69, San Francisco, CA, 2018. American Medical Informatics Association.

122. **(2018)** Dongwook Shin and **Halil Kilicoglu**. Linking section labels with biomedical relations in SemMedDB. In *AMIA Annual Symposium Proceedings*, volume 2018, page 2148, San Francisco, CA, 2018. American Medical Informatics Association.

123. **(2018)** Graciela Rosemblat, Dongwook Shin, and **Halil Kilicoglu**. Enhancing identification of relation arguments in SemRep. In *AMIA Annual Symposium Proceedings*, volume 2018, page 2129, San Francisco, CA, 2018. American Medical Informatics Association.

124. **(2018)** Jodi Schneider, Graciela Rosemblat, Shabnam Tafreshi, and **Halil Kilicoglu**. Stakeholder-focused rhetorical moves: How to address multiple audiences when reporting medical Randomized Controlled Trials. *Argumentation & Language Conference (ARGAGE)*, Lugano, Switzerland.

125. **(2017)** Gerben ter Riet, Sufia Amini, Lotty Hooft, and **Halil Kilicoglu**. Does Weaker Research Make Weaker Claims?: Towards Automatic Detection of Linguistic Hedging. *PUBMET 2017 Conference on Scholarly Publishing in the Context of Open Science*, Split, Croatia.

126. **(2017) Halil Kilicoglu** and Roser Morante-Vallejo. Ensuring Adherence to Reporting Guidelines using Text Mining Techniques. *World Conference on Research Integrity (WCRI 2017) workshop on the role of text and image processing in fostering responsible research practices*, Amsterdam, The Netherlands.

127. **(2017)** Jodi Schneider, Graciela Rosemblat, Shabnam Tafreshi, and **Halil Kilicoglu**. Rhetorical moves and audience considerations in the discussion sections of Randomized Controlled Trials of health interventions. *European Conference on Argumentation: Argumentation and Inference (ECA 2017)*, Fribourg, Switzerland.

128. **(2015)** Sufia Amini, **Halil Kilicoglu**, Lotty Hooft, and Gerben ter Riet. Are we expressing uncertainty of our claims enough? Towards automatic detection of overstatement of claims. *World Conference on Research Integrity (WCRI 2015),* Rio de Janeiro, Brazil.

129. **(2004)** Michele Tringali, Thomas C Rindflesch, **Halil Kilicoglu**, Marcelo Fiszman, and Olivier Bodenreider. Strategies for mapping concepts in gastrointestinal endoscopy reports to the UMLS Metathesaurus. In *Proceedings of MEDINFO 2004*, page 1885, San Francisco, CA, 2004. IOS Press.

130. **(2004)** Powell J Bernhardt, Thomas C Rindflesch, **Halil Kilicoglu**, and Michele Tringali. Identifying anatomical concepts in biomedical text for automatic selection of images. In *Proceedings of MEDINFO 2004*, page 1521, San Francisco, CA, 2004. IOS Press.

131. **(2004)** Gondy Leroy, Thomas C Rindflesch, Bisharah Libbus, **Halil Kilicoglu**, and Hsinchun Chen. A syntactic parser with semantic filtering for biomedical text. In *Pacific Symposium on Biocomputing (PSB)*, Hawai'i, HI, 2004.

132. **(2003)** Marcelo Fiszman, Thomas C Rindflesch, and **Halil Kilicoglu**. Interpreting hypernymic propositions in an online medical encyclopedia. In *AMIA Annual Symposium Proceedings*, volume 2003, page 840, Washington, DC, 2003. American Medical Informatics Association.

SOFTWARE

- SemRep: Semantic relation extraction from biomedical literature [https://semrep.nlm.nih.gov]

- Semantic MEDLINE: Web platform for biomedical knowledge management and literature-based discovery [https://skr3.nlm.nih.gov/SemMed]

- Bio-SCoRes: Coreference resolution for biomedical text and factuality assessment of biomedical semantic relations [https://github.com/kilicogluh/Bio-SCoRes]

- clinical-citation-sentiment: Sentiment analysis for biomedical citations [https://github.com/kilicogluh/clinical-citation-sentiment]

- limitation-recognizer: Recognizing self-acknowledged limitations in clinical publications [https://github.com/kilicogluh/limitation-recognizer]

DATASETS & RESOURCES

- SemMedDB: PubMed-scale repository of biomedical semantic relations

[https://skr3.nlm.nih.gov/SemMedDB]

- SPIRIT-CONSORT-TM: Randomized controlled trial articles (protocols and results publications) annotated for reporting transparency [https://github.com/ScienceNLP-Lab/RCT-Transparency/tree/main/spirit_consort/data]

- Citation Integrity Dataset: Citations to highly-cited biomedical publications annotated for citation accuracy [https://github.com/ScienceNLP-Lab/Citation-Integrity/]

- CONSORT-TM: Randomized controlled trial articles annotated for reporting transparency [https://github.com/kilicogluh/CONSORT-TM]

- Self-acknowledged Limitation Dataset: Sentences from clinical research articles labeled with whether they express self-acknowledged limitations [https://doi.org/10.5061/dryad.06ds7]

- CHQA Corpus: Consumer health questions annotated with semantic layers [https://bionlp.nlm.nih.gov/CHIQAcollections/CHQA-Corpus-1.0.zip]

- CHQA Named Entity Dataset: Consumer health questions annotated with named entities [https://lhncbc.nlm.nih.gov/project/consumer-health-question-answering]

- CHQA Spelling Error Dataset: Consumer health questions annotated with spelling errors and their corrections [https://lhncbc.nlm.nih.gov/project/consumer-health-question-answering]

- SemRep Factuality Dataset: Biomedical semantic relations labeled with their certainty level (Fact, Probable, Doubtful, etc.) [https://skr3.nlm.nih.gov/Factuality/]

- SemRep Sortal Anaphora Dataset: PubMed abstracts annotated with anaphora relations indicated by noun phrases [https://skr3.nlm.nih.gov/SortalAnaphora/]

- SPL Coreference Dataset: Structured drug product labels annotated with coreference relations [https://github.com/kilicogluh/Bio-SCoRes/tree/master/DATA/SPL]

- SemRep Gold Standard Annotation Dataset: PubMed sentences annotated with biomedical semantic relations [https://semrep.nlm.nih.gov/GoldStandard.html]

FUNDING

- University of Illinois at Urbana-Champaign Campus Research Board award for the project *Artificial intelligence (AI)-driven sensory evaluation of basic tastes and food flavors* (2025). Role: co-I. $30,000.

- NIH/NCCIH and NIH/OD U01 award for the project *COMBINI: connecting Complementary Medicine and Biological kNowledge to support Integrative Health*. Role: PI, September 17, 2024 – June 30, 2029. $3,261,972.

- AHRQ R01 award for the project *Improving Results and Conclusions about Harms in Systematic Reviews of Drugs*. Role: MPI, September 30, 2024 – August 31, 2029. $1,918,852.

- NIH/NLM R01 award for the project *Automated Indexing for Publication Types and Study Designs*. Role: Co-I, August 2, 2023 – July 31, 2026. $947,925.

- NIH/NLM R01 award for the project *Computational Methods, Resources, and Tools to Assess Transparency and Rigor of Randomized Controlled Trials*. Role: PI, July 1, 2022 – March 31, 2026. $1,328,502.

- Department of Health and Human Services, Office of Research Integrity award for the project *Natural Language Processing to Assess and Improve Citation Integrity in Biomedical Publications*. Role: PI. June 15, 2022 – June 14, 2024. $300,000.

- CSL/Behring LLC for the project *Literature Search on a-2-macroglobulin*. Role: Co-PI. May 16, 2022—September 30, 2022, $48,488.

- University of Illinois Personalized Nutrition Initiative Seed Grant award for the project *Mining the scientific literature to support personalized nutrition applications* (2022-2024). Role: PI. $50,000.

- University of Illinois at Urbana-Champaign Campus Research Board award for the project *Using text mining to generate limitation profiles of clinical trials* (2022). Role: PI. $30,000.

- National Center for Supercomputing Applications (NCSA) fellowship for the project *Identifying conflicting claims in clinical literature using natural language processing and knowledge graphs* (2021-2022). Role: PI. $25,000.

- Intramural research program of NLM/NIH for the project *Semantic Relation Extraction from Biomedical Text – Methods and Applications* (1ZIALM010012) (2012-2019). Role: Co-I (2012-2017); PI (2018-2019).

HONORS AND AWARDS

2024	BioLaySumm Shared Task on Biomedical Lay Summarization top ranked system [team supervisor]
2023	TrustNLP'2023 Best Paper Award for the paper titled *Examining the Causal Effect of First Names on Language Models: The Case of Social Commonsense Reasoning* [with Sullam Jeoung and Jana Diesner] [senior author]
2022	NIH NCATS LitCoin NLP Challenge, 3rd place [team supervisor]
2021	SemEval 2021 Best System Paper Award for the paper titled *UIUC_BioNLP at SemEval-2021 Task 11: A Cascade of Neural Models for Structuring Scholarly NLP Contributions* [with Haoyang Liu and Janina Sarol] [senior author]
2021	SemEval 2021 top ranked system for the shared task on NLP Contribution Graphs [team supervisor]
2020-2024	List of Teachers Ranked Excellent by their Students, University of Illinois Urbana-Champaign
2020	Journal of American Medical Informatics Association, Distinguished Reviewer
2020	IMIA Yearbook of Medical Informatics, Best Paper Selection (Section 10: Natural Language Processing) for the paper titled *Towards a characterization of apparent contradictions in the biomedical literature using context analysis* [with Graciela Rosemblat, Marcelo Fiszman, and Dongwook Shin] [senior author]
2017	IMIA Yearbook of Medical Informatics, Best Paper Selection (Section 10: Natural Language Processing) for the paper titled *Bio-SCoRes: A Smorgasbord Architecture for Coreference Resolution in Biomedical Text* [with Dina Demner-Fushman] [first author]
2016	AMIA 2016 Distinguished Paper Award for the paper titled *Combining Open-domain and Biomedical Knowledge for Topic Recognition in Consumer Health Questions* [with Yassine Mrabet, Kirk Roberts, and Dina Demner-Fushman]
2014	Top ranked system at the i2b2/UTHealth shared task on identifying risk factors for heart disease
2010-2012	Partial Tuition Fee Remission Award, Concordia University, Faculty of Engineering and Computer Science
2009	Top ranked system at BioNLP shared task on Event Extraction Task 3 (speculation and negation detection), 3rd ranked system at Task 1 (biological event extraction)
2008-2010	Graduate Fellowship Award, Concordia University

2008-2010	International Tuition Fee Remission Award, Concordia University
2008	Conference Travel Award, Concordia University
2007-2010	Graduate Research Assistantship Award, Concordia University, Faculty of Engineering and Computer Science
2007	AMIA 2007 Distinguished Paper Award for the paper titled *Using the Literature-Based Discovery Paradigm to Investigate Drug Mechanisms* [with Caroline Ahlers, Dimitar Hristovski, and Thomas C. Rindflesch]
2001	NASA award for Quality and Process Improvement and Customer Service Excellence for the Agency BRIO Pilot Program project
1999-2000	Teaching Assistantship Award, George Washington University, Department of Computer Science
1999	Turkish Ministry of Education Scholarship Award for Higher Education in the United States

INVITED TALKS

- **(2025)** In Machines We Trust? Harnessing AI to Strengthen Research Rigor and Integrity, University of Florida Department of Health Outcomes & Biomedical Informatics Grand Rounds Lecture.

- **(2025)** In Machines We Trust? NLP as a Research Rigor and Integrity Assistant, AMIA NLP Workgroup Seminar (Virtual).

- **(2025)** Natural Language Processing to Support Obesity and Nutrition Research, The Mathematical Sciences in Obesity Research Course, Rosemont, IL.

- **(2025)** Enhancing Rigor and Integrity of Biomedical Research using Natural Language Processing. University of Washington, Biomedical Informatics Colloquium (Virtual).

- **(2025)** Academia and industry in AI: compete, collaborate, or concede? iConference AIR Workshop 2025, Bloomington, IN.

- **(2025)** Why research integrity needs citation integrity. Stanford University METRICS International Forum (Virtual).

- **(2024)** Mining the Scientific Literature for Diet-Microbiome Associations. Personalized Nutrition Innovation Day. University of Illinois, Champaign, IL.

- **(2023)** Inaccurate citation, citation cartels, fake citations, citation of retracted papers: why research integrity needs citation integrity. Scholars, Educators, and Administrators Fostering Research Integrity (SEAFRI) Community of Practice Lecture Series. Online Ethics Center (Virtual).

- **(2022)** Mining the Scientific Literature to Support Personalized Nutrition Applications. Personalized Nutrition Innovation Day. University of Illinois, Champaign, IL.

- **(2022)** Biomedical Literature Mining for Knowledge Discovery and Hypothesis Generation, University of Pittsburgh Department of Biomedical Informatics, Symbolic AI and Knowledge Graphs Seminar (Virtual).

- **(2021)** Natural Language Processing to Assess Rigor and Transparency of Biomedical Publications. University of Texas San Antonio, Cyber Center for Security and Analytics (Virtual).

- **(2021)** Automated Methods to Assess Rigor and Transparency of Biomedical Publications. University of Illinois Chicago Virtual Symposium on Research Reproducibility: Engaging across Disciplines.

- **(2020)** Promoting Transparency in Biomedical Publications using Natural Language Processing.

University of Kentucky, Institute for Biomedical Informatics, Lexington, KY.

- **(2019)** Natural Language Processing to Promote Transparency in Clinical Publications. Symposium on Meta-research for Transforming Clinical Research, Paris, France.

- **(2019)** Toward More Transparent Biomedical Publications: A Case for Natural Language Processing. Elsevier Labs Online Lecture.

- **(2018)** Semantic MEDLINE: Knowledge Discovery and Hypothesis Generation from Biomedical Research Literature. GeoSemantics Symposium, Bethesda, MD.

- **(2017)** Knowledge Discovery and Hypothesis Generation through Semantic Processing of Biomedical Research Literature. Joint GW Children's National Informatics Seminar Series, George Washington University, Washington, DC.

- **(2016)** Can Natural Language Processing Help in Fostering Responsible Research Practices? University of Illinois, Center for Informatics Research in Science and Scholarship (CIRSS), Champaign, IL.

- **(2016)** Advances in Deep Semantic Representation and Parsing. University of Illinois, School of Information Sciences, Conceptual Foundations Research Group, Champaign, IL.

- **(2014)** Towards Biomedical Text Understanding: A Linguistic Perspective. Virginia Commonwealth University, Department of Computer Science, Richmond, VA.

GUEST LECTURES

- **(2025)** Enhancing Rigor and Integrity of Biomedical Research using Natural Language Processing. University of Illinois, Siebel School of Computing and Data Science, Interactive Computing Seminar, Urbana, IL.

- **(2024)** Citation Integrity. IE498 Responsible Conduct in Research Guest Lecture.

- **(2024)** Citation Integrity. University Library Savvy Researcher Workshop.

- **(2022)** Commonsense Knowledge Representation and Reasoning. Conceptual Foundations Research Group Lecture.

- **(2022)** Natural Language Processing to assess rigor and transparency of biomedical publications. IS 529 Doctoral ProSeminar.

- **(2022)** Biomedical Literature Mining and Knowledge Discovery and Hypothesis Generation. Institute for Genomic Biology, Environmental Impact on Reproductive Health Group Lecture.

- **(2021)** COVID-19 Drug Repurposing using Knowledge Graphs. Conceptual Foundations Research Group Lecture.

- **(2021)** Biomedical Literature Mining for Knowledge Discovery and Hypothesis Generation. IS 505 Information Organization and Access Guest Lecture.

- **(2019)** Natural Language Processing in support of Meta-research Investigations: Two Case Studies. Center for Informatics Research in Science and Scholarship (CIRSS) Lecture.

- **(2019)** Promoting Transparency in Biomedical Publications using Natural Language Processing. School of Information Sciences, IS 529 Doctoral ProSeminar.

- **(2019)** Relationship Extraction from Biomedical Research Literature and Its Applications. School of Information Sciences, Conceptual Foundations Research Group Lecture.

- **(2017-2019)** Semantic Processing for Managing the Biomedical Research Literature. Lister Hill National Center for Biomedical Communications Trainee Seminar.

- **(2015)** Automatic Classification and Answering of NLM Customers' Requests. Lister Hill National Center for Biomedical Communications Lecture.

TEACHING

2025	IS 567: Text Mining, Instructor (Fall 2025)
	IS 567: Text Mining, Instructor (Spring 2025)
	• *Teachers Ranked as Excellent By Their Students* List
	School of Information Sciences, University of Illinois
2024	IS 567: Text Mining, Instructor (Fall 2024)
	• *Teachers Ranked as Excellent By Their Students* List
	IS 567: Text Mining, Instructor (Spring 2024)
	• *Teachers Ranked as Excellent By Their Students* List
	IS 597LLM: Large Language Models, Instructor (Spring 2024)
	• *Teachers Ranked as Excellent By Their Students* List
	School of Information Sciences, University of Illinois
2023	IS 567: Text Mining, Instructor (Fall 2023)
	• *Teachers Ranked as Excellent By Their Students* List
	School of Information Sciences, University of Illinois
2022	IS 515: Information Modeling, Instructor (Spring 2022)
	• *Teachers Ranked as Excellent By Their Students* List
	IS 515: Information Modeling, Co-instructor (Fall 2022)
	• *Teachers Ranked as Excellent By Their Students* List
	IS 567: Text Mining, Instructor (Fall 2022)
	School of Information Sciences, University of Illinois
2021	IS 515: Information Modeling, Instructor (Fall 2021)
	IS 515: Information Modeling, Co-instructor (Spring 2021)
	IS 567: Text Mining, Instructor (Spring 2021)
	• *Teachers Ranked as Excellent By Their Students* List
	School of Information Sciences, University of Illinois
2020	IS 561: Information Modeling, Instructor (Spring 2020)
	IS 515: Information Modeling, Instructor (Fall 2020)
	IS 577: Data Mining, Instructor (Fall 2020)
	• *Teachers Ranked as Excellent By Their Students* List
	School of Information Sciences, University of Illinois
2019	IS 561: Information Modeling, Co-instructor (Fall 2019)
	School of Information Sciences, University of Illinois
2000	CS 100: Applications Software: Instructor (Spring 2000)
	Department of Computer Science, George Washington University

1999   CS 541: Database Management Systems: Teaching Assistant (Fall 1999)
Department of Computer Science, George Washington University

ADVISING & MENTORSHIP

Post-doctoral researchers, co-mentor
- Guocai Chen, PhD, U.S. National Library of Medicine (2012-2013): now researcher at the University of Texas Health Science Center at Houston.
- Yassine Mrabet, PhD, U.S. National Library of Medicine (2015-2017): now Applied Scientist at Amazon.
- Jodi Schneider, PhD, U.S. National Library of Medicine (2016): now Associate Professor at the School of Information Sciences, University of Illinois Urbana-Champaign.
- Colby J. Vorland, PhD, Indiana University School of Public Health (2021-2022): now Assistant Research Scientist, Indiana University School of Public Health.
- Xiangji Ying, MD, PhD, University of North Carolina School of Public Health (2023-Present): now Assistant Research Professor, University of North Carolina School of Public Health.

Doctoral Students, advisor
- Linh Hoang, PhD, School of Information Sciences, University of Illinois (mentor 2019- 2020, advisor 2020–2022): now Data Scientist at Gilead Pharmaceuticals.
- Yingjun Guan, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2020–Fall 2023).
- M Janina Sarol, PhD Candidate, Illinois Informatics Programs, University of Illinois (co-advisor, Spring 2021-Present): preparing dissertation.
- Lan Jiang, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2020-Present): preparing dissertation.
- Morgan Lundy, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2020-Spring 2022).
- Haoyang Liu, PhD Candidate, Illinois Informatics Programs, University of Illinois (advisor, Fall 2020-Fall 2022).
- Mengfei Lan, PhD Candidate, School of Information Sciences, University of Illinois (advisor, Fall 2021–Present): preparing proposal.
- Shufan Ming, PhD Candidate, School of Information Sciences, University of Illinois (advisor, Fall 2022–Present): preparing dissertation.
- Gibong Hong, PhD Candidate, School of Information Sciences, University of Illinois (advisor, Fall 2022–Present): preparing proposal.
- Joe D Menke, PhD Candidate, School of Information Sciences, University of Illinois (advisor, Fall 2023-Present): preparing proposal.
- Evan Guerra, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2023-Present): preparing proposal.
- Yikun Han, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2025-Present): completing coursework.
- Shiwei Liu, PhD Candidate, School of Information Sciences, University of Illinois (co-advisor, Fall 2025-Present): completing coursework.

Doctoral Students, committee member
- Ming Jiang, PhD, Illinois Informatics Programs, University of Illinois (Fall 2020-Summer 2022): now assistant professor at the School of Informatics and Computing, Indiana University-Purdue University

Indianapolis (IUPUI).

- Jinlong (Kenney) Luo, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2019-Fall 2021): transferred to another program.
- Tzu-Kun (Esther) Hsiao, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2020-Present): preparing dissertation.
- Liri Fang, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2021-Present): preparing dissertation.
- Yiren Liu, PhD Candidate, Illinois Informatics, University of Illinois (Fall 2022-Spring 2024): preparing dissertation.
- Ryan Wang, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2022-Present): preparing proposal.
- Sullam Jeoung, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2022-Fall 2024): now Applied Scientist at Amazon.
- Kanyao Han, PhD Candidate, School of Information Sciences, University of Illinois (Spring 2023-Fall 2024): now Applied Scientist at WalMart.
- George Vazquez, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2023-Present): preparing proposal.
- Malik Salami, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2023-Present): preparing dissertation.
- Pingjing Yang, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2023-Present): preparing dissertation.
- Xiujia Yang, PhD Candidate, Illinois Informatics, University of Illinois (Fall 2023-Fall 2024): defended dissertation; now Applied Scientist at InstaCart.
- Jaemin Yang, PhD Candidate, Illinois Informatics, University of Illinois (Fall 2023-Present): preparing dissertation.
- Sofya Styrina, PhD Candidate, Linguistics, University of Illinois (Fall 2024-Present): preparing dissertation.
- Huimin Zeng, PhD Candidate, School of Information Sciences, University of Illinois (Spring 2025-Present): preparing dissertation.

Doctoral Students, external examiner
- Samuel Henry, PhD, Department of Computer Science, Virginia Commonwealth University (Spring 2018-Spring 2019): now assistant professor at the Department of Physics, Computer Science and Engineering, Christopher Newport University.
- Sanya Bathla Taneja, PhD Candidate, Intelligent Systems Program, University of Pittsburgh (Spring 2023-Spring 2025): now post-doctoral researcher at Janssen Pharmaceuticals.
- Monika Jain, PhD Candidate, Computer Science and Engineering, Indraprastha Institute of Information Technology Delhi (IIIT-D).
- Yiyuan Pu, PhD Candidate, School of Computing and Information Technology, University of Melbourne.

Doctoral Students, mentor
- Arif Canakoglu, PhD, Politecnico di Milano(Summer 2013, National Library of Medicine): now Research Scientist at Policlinico di Milano.
- Shabnam Tafreshi, PhD, George Washington University (Summer 2016, National Library of Medicine): now Assistant Research Scientist at the University of Maryland Applied Research Laboratory for Intelligence and Security.
- Tung Tran, PhD, University of Kentucky (Summer 2018, National Library of Medicine): now an AI

engineer at IDS International.

Doctoral Students, project supervisor
- Lan Li, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2020).
- Nadine Veasley, PhD Candidate, Division of Nutritional Sciences, University of Illinois (Summer 2022-Spring 2023)
- Jerome You, PhD Candidate, School of Information Sciences, University of Illinois (Fall 2023-Spring 2024).

Master's Students, project supervisor
- Gaozheng Liu, MS Information Management (Fall 2019): now PhD candidate at the School of Information Sciences.
- Aditya Chanodia, MS Statistics (Summer 2020): now Data Scientist at Schlumberger.
- Sahil Wadhwa, MS Statistics (Spring-Summer 2020): now Applied Scientist at Amazon Alexa.
- Mengfei Lan, MS Information Management (Fall 2020): now PhD candidate at the School of Information Sciences.
- Yasaswi Boyapati, MS Information Management (Spring 2021): now Software Engineer at Amazon EC2.
- Isaac Joy, MS Bioinformatics (Spring 2021): now PhD candidate in the Informatics program.
- Brian Rao, MS Bioinformatics (Fall 2021-Summer 2022): supervised MS thesis.
- Veronica Hindle, MS in Food Science and Human Nutrition (Summer 2022-Spring 2024): served on MS thesis committee.
- Shruthan Radhakrishna, MS Computer Science (Fall 2022-Spring 2024). : now AI Engineer at ServiceNow.
- Degaulle Dai, MS Food Science and Human Nutrition (Spring 2023).
- Sree Kodimela, MS Bioengineering (Spring 2023).
- Arjun Kumaran, MS Information Management (Fall 2024).
- Jainam Rajput, MS Information Management (Spring 2025).
- Shiwei Liu, MS Information Management (Spring 2025).
- Deekshita Karingula, MS Information Management (Spring 2025-Present).
- Sylvey Lin, MS Information Management (Spring 2025-Present).

Undergraduate Students, project supervisor
- Wren Rudolph, BA Linguistics, College of William and Mary (Summer 2013, National Library of Medicine).
- Tory Yeonas, BS Computer Science, Vanderbilt University (Summer 2015, National Library of Medicine).
- Shinka Mori, BS Computer Science+Linguistics, University of Illinois (Spring-Fall 2020).
- Mandy Cheng, BS Biological Sciences, Binghamton University (Summer 2021-Present): supervised in the American Physician Scientists Association Virtual Summer Research Program (VSRP).
- Eugene Gurevich, BS Integrative Biology + Information Science, University of Illinois (Fall 2022-Spring 2023).
- Zoe Tsokolas, BS Cognitive Neuroscience Psychology, University of Illinois (Spring 2023).
- Sunny Lee, BS Biochemistry + Computer Science, University of Illinois (Spring 2023).
- Jackson Song, BS Information Science + Data Science, University of Illinois (Spring 2025-Present).
- Youbeen Oh, BS Information Science + Data Science, University of Illinois (Spring 2025-Summer 2025).
- Sirapop (Mig) Umnakkittikul, BS Computer Engineering, University of Illinois (Summer 2025-Present).

SERVICE

Editorial Boards

- **(2017-2022)** Journal of American Medical Informatics Association, Editorial Review Board Member

- **(2020-Present)** BMC Bioinformatics, Associate Editor

- **(2023-Present)** Journal of Biomedical Informatics, Editorial Review Board Member

- **(2024-Present)** BMC Artificial Intelligence, Editorial Review Board Member

Guest Editorship

- **(2022-2024)** Journal of Biomedical Informatics, Special Issue on *Semantics-enabled Biomedical Literature Analytics*, Managing Guest Editor

Organizing Committees

- **(2025)** IEEE International Conference on Health Informatics (ICHI 2026), Workshop Co-Chair.

- **(2025)** Workshop on Large Language Models and Generative AI for Health at AAAI 2025 (GenAI4Health-AAAI 2025), Organizing Board Member.

- **(2023)** The 6th International Workshop on Health Natural Language Processing (HealthNLP 2023), co-located with the 11th IEEE International Conference on Healthcare Informatics (ICHI 2023), Co-chair

- **(2022)** SEBILAN Workshop on Semantics-enabled Biomedical Literature Analytics, co-located with the Web Conference 2022 (WWW 2022), Co-chair

- **(2017)** Workshop on The role of text and image processing in fostering responsible research practices, co-located with World Conference on Research Integrity (WCRI 2017), Co-chair

Program Committees

- **(2021)** American Medical Informatics Association (AMIA) Annual Symposium, Scientific Program Committee Member

- **(2021)** American Medical Informatics Association (AMIA) Informatics Summit, Scientific Program Committee Member

- **(2013-2021)** Biomedical Natural Language Processing (BioNLP) Workshop, co-located with Annual Meeting of Association for Computational Linguistics (ACL)

- **(2017-2018)** Workshop on Computational Semantics beyond Event and Roles (SemBEaR 2017), co-located with Annual Meeting of European Association for Computational Linguistics (EACL)

- **(2012)** Extra-Propositional Aspects of Meaning in Computational Semantics (ExProM 2012), co-located with ACL

- **(2012)** Workshop on Detecting Structure in Scholarly Discourse (DSSD 2012), co-located with ACL

- **(2010)** Workshop on Negation and Speculation in Natural Language Processing (NeSp 2010), co-located with ACL

Reviewer, Grant Proposals

- **(2024-2028)** NIH Clinical Data Management and Analysis (CDMA) Study Section [Standing Member]
- **(2024-2025)** Amazon-Illinois Center on AI for Interactive Conversational Experiences (AICE) Program
- **(2024)** NIH Special Emphasis Panel for Common Fund Data Sets
- **(2024)** NIH Special Emphasis Panel for High Impact, Interdisciplinary Science in NIDDK
- **(2023)** NIH Health Services & Systems (HSS) Study Section
- **(2023)** National Science Foundation (NSF) Using the Rules of Life to Address Societal Challenges (URoL-ASC) Program
- **(2022-2024)** NIH Clinical Data Management and Analysis (CDMA) Study Section [Ad Hoc Member]
- **(2022)** University of Illinois Personalized Nutrition Initiative Seed Grant Program
- **(2022)** Wellcome Trust Career Development Award Program
- **(2022)** NSF Cyberinfrastructure for Sustained Scientific Innovation (CSSI) Program
- **(2022)** European Research Council, Advanced Grant Program
- **(2022)** National Center for Supercomputing Applications (NCSA) Faculty Fellows Program
- **(2021)** Michigan Center for Diabetes Translational Research Pilot & Feasibility Study Grant Program
- **(2021)** NIH Bridge2AI Program
- **(2019)** Jump Applied Research for Community Health through Engineering and Simulation (ARCHES) Program
- **(2018-2019)** Natural Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant Program
- **(2017)** Sapienza University of Rome, Research Grants Program
- **(2015)** Genome British Columbia, Strategic Opportunities Fund (SOF) Program
- **(2012)** Agency for Healthcare Research and Quality (AHRQ), Evidence-based Practice Center (EPC) Program

Reviewer, Journals

ACM Transactions on Management Information Systems • Bioinformatics • BMC Bioinformatics • BMC Medical Informatics and Decision Making • BMC Medical Research Methodology • BMC Supplements • BMJ Open • Briefings in Bioinformatics • Cancer Informatics • Computational Linguistics • Computer Speech and Language • Computers in Biology and Medicine • Data and Knowledge Engineering • Database • eLife • Frontiers in Research Metrics & Analytics • Genome Medicine • IEEE Intelligent Systems • IEEE/ACM Transactions on Computational Biology and Bioinformatics • International Journal of Medical

Informatics • International Journal of Obesity • iScience • JAMIA Open • Journal of American Medical Informatics Association (JAMIA) • Journal of Biomedical Informatics • Journal of Biomedical Semantics • Journal of Chemical Information and Modeling • Journal of Clinical Epidemiology • Journal of Informetrics • Journal of Medical Internet Research • Medical Decision Making • Methods of Informatics in Medicine • Natural Language Engineering • Nature Communications Biology • npj Digital Medicine • Patterns • PeerJ • PLoS Computational Biology • PLoS One • Research Integrity and Peer Review • Research Synthesis Methods • Scientific Reports • Transactions of Association of Computational Linguistics (TACL)

Reviewer, Conferences/Workshops

(2009-2021) American Medical Informatics Association (AMIA) Annual Symposium • **(2009-2021)** Biomedical Natural Language Processing (BioNLP) Workshop • **(2013-2014, 2020-2024)** IEEE International Conference on Health Informatics (ICHI) • **(2013, 2015)** International Conference on Intelligent Systems for Molecular Biology/ European Conference on Computational Biology (ISMB/ECCB) • **(2015, 2018-2024)** Conference on Empirical Methods on Natural Language Processing (EMNLP) • **(2017-2025)** Annual Meeting of Association for Computational Linguistics (ACL) • **(2017-2018, 2025)** *SEM Joint Conference on Lexical and Computational Semantics • **(2017-2018)** Workshop on Computational Semantics beyond Event and Roles (SemBEaR) • **(2020-2021)** The AAAI Conference on Artificial Intelligence • **(2020, 2022)** Annual Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL) • **(2022-2023)** BioASQ Workshop • **(2024, 2025)** Conference on Language Modeling (COLM) • **(2023)** Conference of the European Chapter of the Association for Computational Linguistics (EACL 2023) • **(2021)** Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2021) • **(2021)** The Conference on Computational Natural Language Learning (CoNLL 2021) • **(2021)** The 15th International Workshop on Semantic Evaluation (SemEval 2021) • **(2021)** International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH) • **(2020)** Workshop on NLP for Medical Conversations (NLPMC) • **(2019, 2026)** iConference • **(2016)** Workshop on Building and Evaluating Resources for Biomedical Text Mining (BioTxtM 2016) • **(2015)** Biomedical Linked Annotation Hackathon (BLAH) • **(2014)** International Conference on Intelligent Systems for Molecular Biology (ISMB) • **(2014)** IEEE Workshop on Issues and Challenges in Social Computing: Social Media, Crowdsourcing, and Public Health (WICSOC) • **(2012)** Computational Methods in Pharmacovigilance Workshop • **(2012)** Extra-Propositional Aspects of Meaning in Computational Semantics (ExProM 2012) • **(2012)** International Workshop on the Role of Semantic Web in Literature-Based Discovery (SWLBD 2012) • **(2012)** Workshop on Detecting Structure in Scholarly Discourse (DSSD 2012) • **(2012)** ACM SIGHIT International Health Informatics Symposium (IHI 2012) • **(2011)** AMIA Summit on Translational Bioinformatics • **(2010)** Workshop on Negation and Speculation in Natural Language Processing (NeSp 2010) • **(2010)** Language Resources and Evaluation Conference (LREC 2010)

Reviewer, Books

- **(2016, 2018-2019)** IMIA Yearbook in Medical Informatics

University of Illinois

- **(2023-Present)** Informatics PhD Program Governing Committee

- **(2022-2023)** Health Innovation Visioning Committee Member
- **(2021-Present)** Personalized Nutrition Initiative Steering Committee Member

University of Illinois School of Information Sciences

- **(2023-2024)** AI Curriculum Committee Chair
- **(2022-2024)** Center for Informatics Research in Science and Scholarship (CIRSS), Theme Lead ("Semantic Computing and Knowledge Graphs")
- **(2021-2023)** PhD Program Committee Member
- **(2021-2023)** Research Advisory Committee Member
- **(2019-2021, 2024-Present)** MS Information Management Program Committee Member
- **(2020-2021)** Diversity Committee Member
- **(2019-2020)** Awards and Lectures Special Committee Member
- **(2019)** HCI Curriculum Committee Member

U.S. National Library of Medicine

- **(2013-2019)** Editorial Review Committee Member
- **(2019)** Training Program Admissions Committee Member

National Institutes of Health

- **(2013-2015)** NIH Research Festival and PostBac Day Judge

Public Engagement/Outreach

- **(2022)** NIH/NINDS Catalyzing Communities of Research Rigor Champions Workshop [Contributor]
- **(2021)** Careers in Text Analytics and Information Retrieval. INFOcon 2021 [Presenter]
- **(2021)** Panel Discussion: Current State of NLP in Biomedical Research. NIH/NCATS LitCoin Stakeholder Feedback Workshop [Panelist]
- **(2021)** ScreenIT: Can we use automated screening tools to improve reporting in scientific papers?. MetaScience 2021 [Moderator]
- **(2021)** The Everyday Lawyer's Guide to Artificial Intelligence and the Practice of Law. Discussion for the Illinois Institute of Continuing Education Technology Series [Interviewee]
- **(2020-2024)** Automated Screening Working Group (#ScreenIT) [Contributor]
- **(2017)** Life after PhD. Mid-Atlantic Student Colloquium on Speech, Language, and Learning [Panelist]

OTHER

Professional Memberships

- American Medical Informatics Association (AMIA)
- Association for Computational Linguistics (ACL)
- Association for Computing Machinery (ACM)
- Association for Information Science and Technology (ASIS&T)

Language Proficiency

English (fluent), Turkish (native)