

LUCY LU WANG

Curriculum vitae

Phone: +1 (443) 824-9725

Email: mail@llwang.net

Website: <https://llwang.net/>

RESEARCH INTERESTS

Biomedical informatics, natural language processing for biomedical and scientific text, open access, and meta-science

APPOINTMENTS

The Allen Institute for Artificial Intelligence (AI2)

2019–2021 Postdoctoral Young Investigator

University of Washington

2018–2019 Research Assistant, Department of Radiology

2014–2018 NLM Graduate Trainee, Department of Biomedical Informatics and Medical Education

EDUCATION

- 2019 PhD, Biomedical Informatics and Medical Education
University of Washington, Seattle, WA, USA
Dissertation: “Ontology-driven pathway data integration”
Committee: John H. Gennari (Advisor), Neil F. Abernethy, Paul K. Crane, Ali Shojaie
- 2013 MS, Applied Biomedical Engineering
The Johns Hopkins University, Baltimore, MD, USA
- 2009 BS, Physics
Massachusetts Institute of Technology, Cambridge, MA, USA

PUBLICATIONS

Peer-reviewed Journal Articles and Conference Papers

- 2021 Mack K, McDonnell EJ, Jain D, [Wang LL](#), Froehlich JE, Findlater L. “What Do We Mean by 'Accessibility Research'? A Literature Survey of Accessibility Papers in CHI and ASSETS from 1994 to 2019.” To appear in the *2021 ACM CHI Conference on Human Factors in Computing Systems*. arXiv: 2101.04271.
- 2021 [Wang LL](#), Stanovsky G, Weihs L, Etzioni O. “Gender trends in computer science authorship.” To appear in *Communications of the Association for Computing Machinery (CACM)*. arXiv: 1906.07883.
- 2020 [Wang LL](#) and Lo K. “Text mining approaches for dealing with the rapidly expanding literature on COVID-19.” *Briefings in Bioinformatics*. doi: 10.1093/bib/bbaa296.

- 2020 Kanakia A, Wang K, Dong Y, Xie B, Lo K, Shen Z, Wang LL, Huang C, Eide D, Kohlmeier S, Wu C-H. "Mitigating biases in CORD-19 for analyzing COVID-19 literature." *Frontiers in Research Metrics and Analytics*. doi: 10.3389/frma.2020.596624.
- 2020 Wadden D, Lin S, Lo K, Wang LL, van Zuylen M, Cohan A, Hajishirzi H. "Fact or fiction: verifying scientific claims." *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP 2020)*. arXiv: 2004.14974.
- 2020 Subramanian S, Wang LL, Mehta S, Bogin B, van Zuylen M, Parasa S, Singh S, Gardner M, Hajishirzi H. "MedICaT: a dataset of medical images, captions, and textual references." *Findings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP Findings 2020)*. arXiv: 2010.06000.
- 2020 Ong E*, Wang LL*, Schaub J, O'Toole JF, Steck B, Rosenberg AZ, Dowd F, Hansen J, Barisoni L, Jain S, de Boer IH, Valerius MT, Waikar SS, Park C, Crawford DC, Alexandrov T, Anderton CR, Stoeckert C, Weng C, Diehl AD, Mungall CJ, Haendel M, Robinson PN, Himmelfarb J, Iyengar R, Kretzler M, Mooney SD, He Y. "Modelling kidney disease using ontology: insights from the Kidney Precision Medicine Project." *Nature Reviews Nephrology*, 2020 Nov; 16(11): 686-696. pmid: 32939051, doi: 10.1038/s41581-020-00335-w.
- 2020 Roberts K, Alam T, Bedrick S, Demner-Fushman D, Lo K, Soboroff I, Voorhees E, Wang LL, Hersh WR. "TREC-COVID: rationale and structure of an information retrieval shared task for COVID-19." *Journal of the American Medical Informatics Association*, 2020 Sep; 27(9):1431-1436. pmid: 32365190, doi: 10.1093/jamia/ocaa091.
- 2020 Wang LL*, Lo K*, Chandrasekhar Y, Reas R, Yang J, Burdick D, Eide D, Funk K, Katsis Y, Kinney R, Li Y, Liu Z, Merrill W, Mooney P, Murdick D, Rishi D, Sheehan J, Shen Z, Stilson B, Wade AD, Wang K, Wang NX, Wilhelm C, Xie B, Raymond D, Weld DS, Etzioni O, Kohlmeier S. "CORD-19: the COVID-19 open research dataset." *Proceedings of the NLP COVID-19 Workshop at the 58th Annual Meeting of the Association for Computational Linguistics (NLP-COVID@ACL)*. arXiv:2004.10706.
- 2020 Lo K*, Wang LL*, Neumann M, Kinney R, Weld DS. "S2ORC: the Semantic Scholar open research corpus." *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*. arXiv: 1911.02782.
- 2020 Wang LL, Tafjord O, Cohan A, Jain S, Skjonsberg S, Schoenick C, Botner N, Ammar W. "SUPP.AI: finding evidence for supplement-drug interactions." *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics: System Demonstrations (ACL Demo)*. arXiv: 1909:08135.
- 2020 Voorhees E, Alam T, Bedrick S, Demner-Fushman D, Hersh WR, Lo K, Roberts K, Soboroff I, Wang LL. "TREC-COVID: Constructing a Pandemic Information Retrieval Test Collection." *SIGIR Forum*, 2020 Jun; 54(1): 1-12. arXiv: 2005.04474.
- 2019 Wang LL, Hayman GT, Smith JR, Tutaj M, Shimoyama ME, Gennari JH. "Predicting instances of Pathway Ontology classes for pathway integration." *Journal of Biomedical Semantics*. 10:11. pmid: 31196182, doi: 10.1186/s13326-019-0202-8.
- 2018 Wang LL, Bhagavatula C, Neumann M, Lo K, Wilhelm C, Ammar W. "Ontology alignment in the biomedical domain using entity definitions and context." *Proceedings of the BioNLP Workshop at the 56th Annual Meeting of the Association for Computational Linguistics (BioNLP@ACL)*. arXiv:1806.07976.

- 2018 Ammar W, Groeneveld D, Bhagavatula C, Beltagy I, Crawford M, Downey D, Dunkelberger J, Elgohary A, Feldman S, Ha V, Kinney R, Kohlmeier S, Lo K, Murray T, Ooi H, Peters M, Power J, Skjonsberg S, Wang LL, Wilhelm C, Yuan Z, van Zuylen M, Etzioni O. "Construction of the literature graph in Semantic Scholar." *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*. arXiv:1805.02262.
- 2017 Kaminsky DA, Wang LL, Bates JH, Thamrin C, Shade DM, Dixon AE, Wise RA, Peters S, Irwin CG. "Fluctuation analysis of peak expiratory flow and its associations with treatment failure in asthma." *American Journal of Respiratory and Critical Care Medicine*, 195(8): 993-9. pmid: 27814453, doi: 10.1164/rccm.201601-0076OC.
- 2017 Wang LL, Gennari JH. "Similarity metrics for determining overlap among biological pathways." *Proceedings of the 2017 International Conference on Biomedical Ontology*.
- 2016 Jung H, Law AB, Grunblatt E, Wang LL, Kusano A, Mejino JLV Jr, Whipple ME. "Development of a novel Markov chain model for the prediction of head and neck squamous cell carcinoma dissemination." *American Medical Informatics Association (AMIA) Annual Symposium Proceedings*, 2016: 1832-9. pmid: 28269942.
- 2016 Wang LL, Gennari JH, Abernethy NF. "An analysis of differences in biological pathway resources." *Proceedings of the 2016 Joint International Conference on Biological Ontology and BioCreative*.
- 2015 Wang LL, Grunblatt E, Jung H, Kalet IJ, Whipple ME. "Biological model development as an opportunity to provide content auditing for the Foundational Model of Anatomy ontology." *American Medical Informatics Association (AMIA) Annual Symposium Proceedings*, 2015: 2111-20. pmid: 26958311
- 2015 Zaidman CM, Wang LL, Connolly AM, Florence J, Wong BL, Parsons JA, Apkon S, Goyal N, Williams E, Escolar D, Rutkove SB, Bohorquez JL; DART-EIM Clinical Evaluators Consortium. "Electrical impedance myography in Duchenne muscular dystrophy and health controls: a multi-center study of reliability and validity." *Muscle & Nerve*, 52(4): 592-7. pmid: 25702806, doi: 10.1002/mus.24611.
- 2011 Wang LL, Spieker AJ, Li J, Rutkove SB. "Electrical impedance myography for monitoring motor neuron loss in the SOD1 G93A amyotrophic lateral sclerosis rat." *Clinical Neurophysiology*, 122: 2505-11. pmid: 21612980, doi: 10.1016/j.clinph.2011.04.021.
- 2011 Wang LL, Ahad M, McEwan A, Li J, Jafarpour M, Rutkove SB. "Assessment of alterations in the electrical impedance of muscle after experimental nerve injury via finite-element analysis." *IEEE Transactions on Biomedical Engineering*, 58(6): 1585-91. pmid: 21224171, doi: 10.1109/TBME.2011.2104957.

Preprints

- 2018 Wang LL, Lin H, Bao X, Sengupta S, Busby B, Butler RR III. "PhenotypeXpression: sub-classification of disease states using public gene expression data and literature." *bioRxiv*. doi: 10.1101/461301.

Theses

- 2019 Wang LL. "Ontology-driven pathway data integration." PhD Dissertation: Department of Biomedical Informatics and Medical Education, University of Washington, Seattle, WA. Advised by John H. Gennari, Neil F. Abernethy, and Paul K. Crane.

- 2013 [Wang LL](#). “Matching Pursuit for Detecting Epileptic Response in EEG Following Photic Stimulation.” Masters Thesis: Department of Biomedical Engineering, The Johns Hopkins University, Baltimore, MD. Advised by David Sherman.

INVITED TALKS

- 2020 “Mining the COVID-19 scientific literature with the COVID-19 open research dataset.” Artificial Intelligence for Data Discovery and Reuse (AIDR) Symposium. Online. October 19, 2020.
- 2020 “COVID-19 search: using machine learning to explore COVID-19 scientific literature.” AWS Education: Research Seminar Series. Online. July 29, 2020.
- 2020 “Improving access to scientific literature for NLP.” Microsoft Research Hanover Group. Online. June 18, 2020.
- 2020 “The COVID-19 open research dataset.” Connected Health and COVID-19: Now and Beyond the Great Lockdown. Online. June 12, 2020.
- 2020 “The COVID-19 open research dataset.” Centre for Science and Technology Studies, Leiden University. Online. May 27, 2020.
- 2020 “COVID-19: The COVID-19 open research dataset.” NLP Meetup (NY-NLP, A2D-NLP, DC-NLP, Hungarian NLP, London Text Analytics). Online. April 27, 2020.
- 2020 “The COVID-19 open research dataset.” Semantic Indexing and Information Retrieval for Health Workshop at ECIR 2020. Online. April 14, 2020.
- 2019 “Ontology-based integration of biological pathway data.” Scientific Literature Knowledge Bases Workshop at Automated Knowledge Base Construction (AKBC). Amherst, MA, USA. May 22, 2019.
- 2018 “Ontologies and algorithms for integrating biological pathway data.” BIME 590 Seminar, Department of Biomedical Informatics and Medical Education, University of Washington. Seattle, WA, USA. October 11, 2018.
- 2018 “Learning from biomedical knowledge.” The Allen Institute for Artificial Intelligence (AI2). Seattle, WA, USA. October 10, 2018.

PANELS

- 2020 “Open publishing and open data.” Neuro-Gairdner Open Science in Action Symposium. Online. November 11, 2020.
- 2020 “Building community and data ecosystem for data discovery and reuse.” Artificial Intelligence for Data Discovery and Reuse (AIDR) Symposium. Online. October 19, 2020.
- 2020 “Rapid Fire Session: Showcasing What is Here!” Gastroenterology and Artificial Intelligence: 2nd Annual Artificial Intelligence Summit. Online. October 17, 2020.

CONFERENCE ACTIVITY

* Indicates presenting author(s)

- 2020 [Conference Paper Presented at Workshop] Subramanian S*, Wang LL, Mehta S, Bogin B, van Zuylen M, Parasa S, Singh S, Gardner M, Hajishirzi H. "MedICaT: a dataset of medical images, captions, and textual references." SDP Workshop at EMNLP. Online. November 19, 2020.
- 2020 [Conference Paper] Wadden D*, Lin S, Lo K, Wang LL, van Zuylen M, Cohan A, Hajishirzi H. "Fact or fiction: verifying scientific claims." EMNLP. Online. November 18, 2020.
- 2020 [Invited Extended Abstract] Wang LL* and Lo K. "CORD-19: The COVID-19 Open Research Dataset." Global Tech Mining Conference. Online. November 13, 2020.
- 2020 [Workshop Paper] Wang LL*, Lo K*, Chandrasekhar Y, Reas R, Yang J, Burdick D, Eide D, Funk K, Katsis Y, Kinney R, Li Y, Liu Z, Merrill W, Mooney P, Murdick D, Rishi D, Sheehan J, Shen Z, Stilson B, Wade AD, Wang K, Wang NX, Wilhelm C, Xie B, Raymond D, Weld DS, Etzioni O, Kohlmeier S. "CORD-19: the COVID-19 open research dataset." NLP-COVID Workshop at ACL. Online. July 9, 2020.
- 2020 [Conference Paper] Lo K*, Wang LL, Neumann M, Kinney R, Weld DS. "S2ORC: the Semantic Scholar open research corpus." ACL. Online. July 8, 2020.
- 2020 [Conference Paper] Wang LL*, Tafjord O, Cohan A, Jain S, Skjonsberg S, Schoenick C, Botner N, Ammar W. "SUPP.AI: finding evidence for supplement-drug interactions." ACL Demo. Online. July 7, 2020.
- 2019 [Workshop Paper and Poster] Wang LL*, Tafjord O, Cohan A, Jain S, Skjonsberg S, Schoenick C, Botner N, Ammar W. "Extracting evidence of supplement-drug interactions from literature." ML4H Workshop at NeurIPS. Vancouver, BC, Canada. December 13, 2019.
- 2019 [Poster] Wang LL*, Wang Y, Oztek MA, Mayr N, Lo S, Yuh W, Mossa-Basha M. "Automated Identification of Noise Signal in Spinal DCE-MRI using Independent Component Analysis and Unsupervised Machine Learning." ISMRM. Montréal, QC, Canada. May 16, 2019.
- 2018 [Poster] Wang LL* and Gennari JH. "Quantifying the effects of gene entity disambiguation for GSEA." AMIA Symposium. San Francisco, CA, USA. November 5, 2018.
- 2018 [Doctoral Consortium] Wang LL. "Semi-automated integration of pathway data for pathway analysis." Knowledge Representation and Semantics Working Group Pre-Symposium Doctoral Consortium, AMIA Symposium. San Francisco, CA, USA. November 3, 2018.
- 2018 [Workshop Paper] Wang LL*, Bhagavatula C, Neumann M, Lo K, Wilhelm C, Ammar W. "Ontology alignment in the biomedical domain using entity definitions and context." Bio-NLP Workshop at ACL. Melbourne, Australia. July 19, 2018.
- 2018 [Conference Paper] Wang LL*, Shimoyama M, Hayman GT, Smith JR, Tutaj M, Gennari JH. "Ontology-based integration of pathway databases using Pathway Ontology annotations." Bio-Ontologies at ISMB. Chicago, IL, USA. July 9, 2018.

- 2017 [Conference Paper] Wang LL* and Gennari JH. "Similarity metrics for determining overlap among biological pathways." ICBO. Newcastle upon Tyne, United Kingdom. September 15, 2017.
- 2017 [Poster] Hood TR*, Wang LL, Abernethy N. "Detection and Functional Classification of Fusion Genes Using Pathway Expression Profiles." AMIA Joint Summits on Translational Science. San Francisco, CA, USA. March 28, 2017.
- 2016 [Extended Abstract] Wang LL*, Gennari JH, Abernethy N. "Discovering representational differences between pathway knowledge bases for pathway resource merging." AMIA Symposium. Chicago, IL, USA. November 15, 2016.
- 2016 [Poster] Wang LL*, Grunblatt E, Whipple ME. "Auditing tree-like organ systems in the FMA using network motifs." AMIA Symposium. Chicago, IL, USA. November 15, 2016.
- 2016 [Conference Paper] Jung H*, Law AB, Grunblatt E, Wang LL, Kusano A, Mejino JLV Jr, Whipple ME. "Development of a novel Markov chain model for the prediction of head and neck squamous cell carcinoma dissemination." AMIA Symposium. Chicago, IL, USA. November 16, 2016.
- 2016 [Conference Paper] Wang LL*, Gennari JH, Abernethy N. "An analysis of differences in biological pathway resources." ICBO and BioCreative. Corvallis, OR, USA. August 3, 2016.
- 2016 [Poster] Wang LL. "Identifying and resolving inconsistencies in biological pathway resources." NLM Informatics Training Conference. Columbus, OH, USA. June 27, 2016.
- 2015 [Conference Paper] Wang LL*, Grunblatt E, Jung H, Kalet IJ, Whipple ME. "Biological model development as an opportunity to provide content auditing for the foundational model of anatomy ontology." AMIA Symposium. San Francisco, CA, USA. November 16, 2015.
- 2015 [Poster] Wang LL* and Choi Y. "Development of a discharge ontology to support postanesthesia discharge decision making." ICBO. Lisbon, Portugal. July 29, 2015.
- 2015 [Poster] Wang LL. "Ontological content auditing during model creation using the foundational model of anatomy." NLM Informatics Training Conference. Bethesda, MD, USA. June 23, 2015.
- 2014 [Poster] Kaminsky DA*, Wang LL, Shade DM, Dixon AE, Bates JHT, Irvin CG, Wise RA, Peters SP. "Detrended fluctuation analysis of peak expiratory flow and its association with destabilization of asthma control." International Conference of the American Thoracic Society (ATS). San Diego, CA, USA. May 16, 2014.
- 2013 [Poster] Zaidman C*, Bohorquez J, Wang LL, Florence J, Connolly AM, Escolar DM, Williams G. "Electrical impedance myography in DMD: a multi-center study of reliability and relationships to strength and function." The 18th International Congress of the World Muscle Society. Asilomar, CA, USA. October 2, 2013.

SELECTED PRESS COVERAGE

- 2020 "Artificial Intelligence is on track to improve medicine." Written by Paul Bennett for Techonomy. December 17, 2020. <https://techonomy.com/2020/12/artificial-intelligence-is-on-track-to-improve-medicine/>

- 2020 “Software tools for mining COVID-19 research studies go viral among scientists.” Written by Alan Boyle for Geekwire. April 23, 2020. <https://www.geekwire.com/2020/software-tools-mining-covid-19-research-studies-go-viral-among-scientists/>
- 2020 “Exploring the COVID-19 Open Research Dataset.” Recorded with Chris Benson and Daniel Whitenack at The Changelog’s Practical AI. April 20, 2020. <https://changelog.com/practicalai/86>
- 2019 “How do drugs interact with supplements? Supp.AI search engine tracks down clues.” Written by Alan Boyle for Geekwire. September 19, 2019. <https://www.geekwire.com/2019/drugs-interact-supplements-suppai-search-engine-tracks-clues/>
- 2019 “Supp AI uses machine learning to identify supplement interactions.” Written by Kyle Wiggers for VentureBeat. September 19, 2019. <https://venturebeat.com/2019/09/19/supp-ai-uses-machine-learning-to-model-supplement-interactions/>
- 2019 “Another century of gender inequality in computer science.” Written by Kaveh Waddell for Axios. June 24, 2019. <https://www.axios.com/gender-inequality-computer-science-research-5440357b-6c13-4411-a373-1d3d771dfefc.html>
- 2019 “The Gender Gap in Computer Science Research Won’t Close for 100 Years.” Written by Cade Metz for The New York Times. June 21, 2019. <https://www.nytimes.com/2019/06/21/technology/gender-gap-tech-computer-science.html>

FELLOWSHIPS & AWARDS

- 2014—2018 National Library of Medicine Informatics Training Fellowship
- 2017 UW Graduate School Fund for Excellence and Innovation Travel Award
- 2016 BioCreative/ICBO travel fellowship
- 2015 UW Graduate School Fund for Excellence and Innovation Travel Award

GRANTS

- 2018 UW Student Technology Grant, \$88,426
University of Washington Student Technology Fee Committee

TEACHING

- 2017 BIME 591, Biological Pathway Analysis: Trends and Applications
Department of Biomedical Informatics and Medical Education, University of Washington, Seattle, WA, USA.

Tutorials

- 2018 Kidney Precision Medicine Project Ontology Webinar. “A Brief Introduction to Ontology.” Online. December 19, 2018.
- 2018 Kidney Precision Medicine Project Ontology Workshop. “A Brief Introduction to Ontology.” Seattle, WA, USA. July 24, 2018.

Guest lectures

- 2020 BIME 550, Knowledge Representation, “A SPARQL Tutorial”
Department of Biomedical Informatics and Medical Education, University of Washington,
Seattle, WA, USA. January 29, 2020.
- 2018 BIME 550, Knowledge Representation, “A SPARQL Tutorial”
Department of Biomedical Informatics and Medical Education, University of Washington,
Seattle, WA, USA. January 24, 2018.

MENTORSHIP

- 2019–2021 Mentor, Semantic Scholar Research Internships, Allen Institute for AI
- 2020 Mentor, Graduate Student Mentorship Initiative, Científico Latino
- 2017–2018 Mentor, University of Washington High Performance Computing Club

OTHER RESEARCH & WORK EXPERIENCE

- 2018–2019 Research Assistant, Department of Radiology, University of Washington
- 2017 Research Intern, Semantic Scholar Research, The Allen Institute for Artificial
Intelligence
- 2013–2014 Software Engineer, Xcision Medical Systems, LLC.
- 2012–2014 Data Analyst, Skulpt Inc., formerly Convergence Medical Devices, Inc.
- 2011–2012 Research Data Coordinator, Asthma Clinical Research Center, Johns Hopkins
Bloomberg School of Public Health
- 2009–2010 Research Assistant, Rutkove Lab, Department of Neurology, Beth Israel
Deaconess Medical Center

SERVICE TO PROFESSION

Organizing Committee

- 2021 Scholarly Document Processing (SDP) Workshop at NAACL-HLT
- 2020 Epidemic Question Answering (EPIC-QA) Shared Task at TAC
- 2020 TREC-COVID Shared Task at TREC
- 2020 SciNLP Workshop at AKBC

Program Committee

- 2020 BioASQ Workshop at CLEF
- 2020 Scholarly Document Processing (SDP) Workshop at EMNLP

Reviewing

I primarily review for journals and conferences in biomedical informatics and NLP, including the following, listed in alphabetical order:

- AAACL-IJCNLP System Demonstrations (2020)
- ACM Transactions on Computing for Healthcare (2020)

American Medical Informatics Association (AMIA) Annual Symposium (2016, 2017, 2019)
American Medical Informatics Association (AMIA) Informatics Summit (2018, 2019, 2021)
American Medical Informatics Association (AMIA) Translational Bioinformatics YIR (2017, 2018)
Data Science (2019)
Empirical Methods in Natural Language Processing (EMNLP) (2019)
IEEE Transactions on Knowledge and Data Engineering (2020)
Journal of the American Medical Informatics Association (JAMIA) (2017, 2018)
Journal of Biomedical Informatics (JBI) (2019, 2020)
Machine Learning for Health (ML4H) Workshop at NeurIPS (2019)
Nature Scientific Reports (2020)
NLP-COVID Workshop at EMNLP (2020)
Scholarly Document Processing (SDP) Workshop at EMNLP (2020)

Other Service

2021 Member, Governance Task Force, AMIA
2019—2020 Member, Kidney Precision Medicine Project Ontology Integration Sub-committee
2017—2019 Member, Student Editorial Board, JAMIA
2017—2018 Manager, Journal Club, JAMIA
2017 Assistant Editor, MedInfo

Departmental Committees

2019—2021 Committee on Diversity, Equity, and Inclusion, Allen Institute for AI
2015—2016 Curriculum Committee, Department of Biomedical Informatics and Medical Education, University of Washington

Non-Profit Activity

2020—2021 Vice President, Board of Directors, Nihon-Kiin Go Institute of the West
2018—2021 Elected Member, Board of Directors, Nihon-Kiin Go Institute of the West

PROFESSIONAL MEMBERSHIPS

2018—2021 Association for Computational Linguistics (ACL)
2015—2021 American Medical Informatics Association (AMIA)
2018—2019 International Society for Computational Biology (ISCB)
2015—2018 The International Association for Ontology and its Applications (IAOA)