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RESEARCH INTERESTS:

Artificial Intelligence; Data Mining; Data Integration; Information Extraction; Biomedical and Health Informatics.

EDUCATION:

- 2004 Ph.D. in Artificial Intelligence, Yale University.
  Thesis: *Ontology Translation by Ontology Merging and Automated Reasoning.*
  Advisor: Drew V. McDermott.
- 2000 M. S. in Electrical Engineering, Yale University.
- 1998-1999 in M. S. Program of Electronic Engineering, Tsinghua University, China.
- 1996 B. E. in Electronic Engineering, Tsinghua University, China.

APPOINTMENTS:

- 2023 - current, Adjunct Professor, Electronic Engineering Department, Tsinghua University
- 2022 - current, Chief Data Scientist, Partner and Vice President, BCG in Greater China.
- 2020 - 2022 (on leave from UO), Head of Big Data Lab and Business Intelligence Lab, Baidu Research.
- 2019 - 2020 (sabbatical leave), Head of Big Data Lab, Baidu Research.
- 2018 - 2020 Director, NSF IUCRC Center for Big Learning, University of Oregon.
- 2016 - 2022, Full Professor (with tenure), University of Oregon.
- 2012 - 2013 (sabbatical leave), Visiting Associate Professor, Stanford University.
- 2010 - 2016, Associate Professor (with tenure), University of Oregon.

- 2004 - 2010, Assistant Professor, University or Oregon.
- 2000 - 2004, Research Assistant, Yale University.
- 1996 - 1999, Research Assistant, Tsinghua University.

RESEARCH&WORK EXPERIENCE

- **Nov 2022 - Current** Chief Data Scientist, Partner and Vice President, BCG in Greater China. Work on more than 30 Generative AI and Big Data consulting projects in various domains including Healthcare, Medical, Pharmacy, Finance, Insurance, Human Resource, TMT, Consumer, and Energy.
- **Sep 2019 - Nov 2022** Head of Big Data Lab (2019-2022) and Head of Business Intelligence Lab (2020-2022), Baidu Research. Professor (on leave), Department of Computer and Information Science, University of Oregon. Conduct Research in Interpretable Deep Learning and Federated Learning and applications for Clean Energy, Medical Data Analysis, Drug Design, Finance, Smart City, Smart Transportation, and Healthcare.
- **Sep 2016 - Sep 2019** Professor, Department of Computer and Information Science, University of Oregon. Conduct Research in the theoretical framework and applications for Semantic Data Mining, Semantic Deep Learning, NLP, and Health Informatics.
- **Sep 2010 - August 2016** Associate Professor, Department of Computer and Information Science, University of Oregon. Visiting Associate Professor (2012 - 2013), Stanford Center for Biomedical Informatics Research, Stanford University. Conducted Research in the theoretical framework for Semantic Data Mining, Ontology-based Information Extraction, and Health Informatics, and its practical applications.
- **Sep 2004 - Aug 2010** Assistant Professor, Department of Computer and Information Science, University of Oregon. Conducted Research in the theoretical framework for Ontology-based Integration, Mining, and Modeling, and its practical applications, specially in Biomedical, Business, Network, and Neuroscience data.
- **Sep 2000 - Aug 2004** Research Assistant, Department of Computer Science, Yale University. Conducted Research in COABS Grid Based Software Agent Communication, First Order Logic Representation and Reasoning for the Semantic Web, Ontology Integration and Translation on the Semantic Web.
- **Summer 2000** Research Assistant, Department of Computer Science, Yale University. Conducted Research in Radio Communication and Control for Robots in Robocup Project, Participated in Robocup2000 competition in Melbourne, Australia.
- **Sep 1999 - May 2000** Graduate Fellowships, Department of Electrical Engineering, Yale University.

- **Jul 1996 - Jun 1999** Research Assistant&Software Engineer, Electronic Engineering Department, Tsinghua University, China. Conducted Research in Signal Processing Software, Circuit&Electronic Device and Graphic User Interface for a Novel Mini-TOFMS System.
- **Sep 1995 - Jun 1996** Senior Student, Electronic Engineering Department, Tsinghua University, China. Conducted a senior project in Software Simulation and Circuit Design on Matching Network for Acoustic Transducers.

TEACHING EXPERIENCE:

- Professor (2016 - 2022), Associate Professor (2010 - 2016), Assistant Professor (2004 - 2010), University of Oregon:
  - CIS212 Introduction to Computer Science, Spring 2009, Spring 2008.
  - CIS451/551 Database Processing, Fall 2006, Fall 2005, Winter 2005.
  - CIS452/552 Database Issues (Big Data), Winter 2017, Winter 2015.
  - CIS453/553 Data Mining, Spring 2019, Spring 2018, Spring 2017, Spring 2016, Spring 2015, Spring 2014, Spring 2012, Winter 2011, Spring 2010, Winter 2008, Winter 2007, Spring 2006, Spring 2005.
  - CIS471/571 Introduction to Artificial Intelligence, Fall 2018, Fall 2017, Fall 2015, Fall 2014, Fall 2013, Winter 2006.
  - CIS472/572 Machine Learning, Winter 2014, Winter 2012, Winter 2011, Winter 2010, Winter 2009, Spring 2007.
  - CIS607 Semantic Information Integration (graduate seminar), Winter 2008, Fall 2006, Fall 2005, Fall 2004.
  - CIS607 Data Mining and Data Integration in Bioinformatics (graduate seminar), Spring 2010, Winter 2009.
  - CIS607 Social Networks and Health Informatics (graduate seminar), Spring 2012, Spring 2011.
  - CIS607 Big Data and Deep Learning (graduate seminar), Spring 2019, Spring 2018, Spring 2017, Spring 2014.
  - CIS607 Natural Language Processing and Information Extraction (graduate seminar), Spring 2016, Spring 2015.
  - CIS670 Data Science, Winter 2019, Winter 2018, Fall 2016, Spring 2016.
  - DSC433/533 Information Analysis for Managerial Decisions (Invited Course for the Department of Decision Sciences in the Lundquist College of Business), Fall 2008.
- Teaching Assistant (2001-2003), Yale University:
  - CS470 Artificial Intelligence (graduate and senior undergraduate class), Fall 2001;
  - CS472 Symbolic Programming (graduate and senior undergraduate class), Fall 2002;
  - CS112 Introduction to Programming(undergraduate class), Spring 2002, Spring 2003;

  - CS201 Introduction to Computer Science(undergraduate class), Fall 2003.

- Mentor for Undergraduate Students, Tsinghua University. Nov. 1995 - Jun. 1999

GRANTS

- NSF IIS-1935080 $24,000 7/1/2019 - 6/30/2020
  PI (Dejing Dou)
  NSF Student Travel Support for the 2019 IEEE International Conference on Data Mining (ICDM 2019)
  This NSF grant will support U.S.-based students attending the 2019 IEEE International Conference on Data Mining (ICDM 2019).

- NSF CNS-1747798 $749,998 (plus industry contribution over $1M) 2/1/2018 - 1/31/2023
  PI (Director: Dejing Dou; co-Director: Allen Malony; Key Personnels: Joe Sventek, NhatHai Phan, Boyana Norris, Thien Nguyen, Zhibin Yang, Daniel Lowd)
  Phase I IUCRC University of Oregon: Center for Big Learning
  This NSF industry-university cooperative research center grant will support UO's Center for Big Learning (CBL) for five years (Phase I). The other three CBL centers are at the University of Florida, Carnegie Mellon University, and University of Missouri at Kansas City.

- NSF CNS-1650587 $15,000 2/15/2017 - 1/31/2018
  PI (PI: Dejing Dou; co-PIs: Allen Malony, Joe Sventek, Daniel Lowd, NhatHai Phan, Steve Fickas, Reza Rejaie, Hank Childs, Boyana Norris, William Cresko)
  University of Oregon Planning Proposal: IUCRC for Big Learning
  This NSF planning grant will support our efforts to establish an IUCRC center for large-scale deep learning (Big Learning). The other three Big Learning centers are with the University of Florida, Carnegie Mellon University, and University of Missouri at Kansas City.

- NIH/NCI 1U01CA180982, $200,514 6/15/2015 - 7/31/2017
  Co-I/University of Oregon subcontract PI (PI: Jingshan Huang, University of South Alabama, grant total: $0.91M)
  OmniSearch: A semantic tool for discovering microRNAs critical roles in human cancers
  This subcontract project will develop a semantic data integration and SPARQL query system for microRNA knowledge acquisition.

- NIH/NIGMS R01GM103309 $1,541,828 5/1/2013 - 2/29/2016
  PI (PI: Dejing Dou; co-Investigators: Brigitte Piniewski, Ruoming Jin, Xintao Wu, Jessica Greene, Daniel Lowd, Junfeng Sun; consultant: David Kil)
  Understanding the Mechanism of Social Network Influence in Health Outcomes through Multidimensional and Semantic Data Mining Approaches
  This project studies how health behaviors spread in the social networks through data mining, graph mining, ontologies, and privacy preserving techniques.

- NSF IIS-1118050 $494,695 (plus $16,000 REU supplement) 7/1/2011 - 6/30/2015
  PI (PI: Dejing Dou; co-PI: Daniel Lowd)
  Statistical Knowledge Translation and Knowledge Integration Using Markov Logic
  This project studies translation, integration, and benchmarking of knowledge mined from semantically heterogeneous data resources by reasoning and learning with formal ontologies and Markov Logic.

- NIH/NIBIB R01EB007684 $2,216,347 5/1/2009 - 4/30/2013
  PI (PI: Dejing Dou; co-Investigators: Gwen Frishkoff, Allen Malony, Don Tucker)
  Neural ElectroMagnetic Ontologies: ERP Knowledge Representation & Integration
  This project studies ontology development and ontology-based integration and mining for data from different EEG labs and data analysis methods.

- NSF CNS-0520326 $350,000 10/1/2005 - 9/30/2008
  co-PI (PI: Jun Li; co-PI: Dejing Dou and David Meyer)
  NeTS-NBD: Internet Routing Forensics – A Framework for Understanding, Monitoring and Detecting Abnormal Border Gateway Protocol Events
  This project studies abnormal Border Gateway Protocol (BGP) events in the internet. We are extending data mining techniques to analyze BGP data.

HONORS

- BCG GenAI Technical Black Belt, 2024.
- Area Chair Favorites (excellent) paper of COLING 2018.
- One of the best papers from the proceedings of DEXA2016.
- Best Paper Award of DEXA2015.
- One of the best papers from the proceedings of ODBASE2013.
- A Candidate for Best Research Paper Award of SIGKDD2007.
- One of the best papers from the proceedings of ODBASE2003.
- One of the best papers from the proceedings of OAS2002, OMAS2002 and OAS2003.
- AAAI student travel grant for ISWC2002.
- Graduate Fellowship and Becton Fellowship, Yale University, 1999.

PUBLICATIONS

A complete list can be referred to `https://scholar.google.com/citations?user=qBHsQ04AAAAJ`

Journal Papers

70. Quanming Yao, Zhenqian Shen, Yaqing Wang, Dejing Dou. "Property-Aware Relation Networks for Few-Shot Molecular Property Prediction." *IEEE Transactions on Pattern Analysis and Machine Intelligence.* (published online), pages 1-16, 2024.

69. Shuangli Li, Jingbo Zhou, Tong Xu, Liang Huang, Fan Wang, Haoyi Xiong, Weili Huang, Dejing Dou, Hui, Xiong. "GIaNt: Protein-Ligand Binding Affinity Prediction via Geometry-Aware Interactive Graph Neural Network." *IEEE Transactions on Knowledge and Data Engineering.* 36(5): 1991-2008, 2024.

68. Qilong Li, Ji Liu, Yifan Sun, Chongsheng Zhang, Dejing Dou. "On mask-based image set desensitization with recognition support." *Appl. Intell.* 54(1): 886-898, 2024.

67. Qingzhong Wang, Haifang Li, Haoyi Xiong, Wen Wang, Jiang Bian, Yu Lu, Shuaiqiang Wang, Zhicong Cheng, Dejing Dou, Dawei Yin. "A Simple yet Effective Framework for Active Learning to Rank." *Mach. Intell. Res.* 21(1): 169-183, 2024.

66. Can Chen, Hao Liu, Zeming Liu, Xue Liu, Dejing Dou. "Dual-space Hierarchical Learning for Goal-guided Conversational Recommendation." *Neurocomputing* 574: 127219, 2024.

65. Xingjian Li, Di Hu, Xuhong Li, Haoyi Xiong, Cheng-Zhong Xu, Dejing Dou. "Towards accurate knowledge transfer via target-awareness representation disentanglement." *Mach. Learn.* 113(2): 699-723, 2024.

64. Haoyi Xiong, Xuhong Li, Boyang Yu, Dongrui Wu, Zhanxing Zhu, Dejing Dou. "Stochastic gradient descent with random label noises: doubly stochastic models and inference stabilizer." *Mach. Learn. Sci. Technol.* 5(1): 15039, 2024.

63. Siyu Huang, Tianyang Wang, Haoyi Xiong, Bihan Wen, Jun Huan, Dejing Dou. "Temporal Output Discrepancy for Loss Estimation-Based Active Learning." *IEEE Trans. Neural Networks Learn. Syst.* 35(2): 2109-2123, 2024.

62. Jiang Bian, Xuhong Li, Tao Wang, Qingzhong Wang, Jun Huang, Chen Liu, Jun Zhao, Feixiang Lu, Dejing Dou, Haoyi Xiong. "P2ANet: A Large-Scale Benchmark for Dense Action Detection from Table Tennis Match Broadcasting Videos." *ACM Trans. Multim. Comput. Commun. Appl.* 20(4): 118:1-118:23, 2024.

61. Zhi Cao, Jingbo Zhou, Meng Li, Jizhou Huang, and Dejing Dou. "Urbanites' mental health undermined by air pollution." *Nature Sustainability.* 6, 470-478, 2023.

60. Xuhong Li, Haoyi Xiong, Xingjian Li, Xiao Zhang, Ji Liu, Haiyan Jiang, Zeyu Chen, and Dejing Dou. "G-LIME: Statistical learning for local interpretations of deep neural networks using global priors." *Artificial Intelligence.* 314: 103823, 2023.

59. Can (sam) Chen, Jingbo Zhou, Fan Wang, Xue (Steve) Liu, Dejing Dou. "Structure-aware protein self-supervised learning." *Bioinform.* 39(4), 2023.

58. Ji Liu, Xuehai Zhou, Lei Mo, Shilei Ji, Yuan Liao, Zheng Li, Qin Gu, Dejing Dou. "Distributed and deep vertical federated learning with big data." *Concurr. Comput. Pract. Exp.* 35(21), 2023.

57. Ji Liu, Daxiang Dong, Xi Wang, An Qin, Xingjian Li, Patrick Valduriez, Dejing Dou, Dianhai Yu. "Large-scale knowledge distillation with elastic heterogeneous computing resources." *Concurr. Comput. Pract. Exp.* 35(26), 2023.

56. Ji Liu, Zhihua Wu, Danlei Feng, Minxu Zhang, Xinxuan Wu, Xuefeng Yao, Dianhai Yu, Yanjun Ma, Feng Zhao, Dejing Dou. "HeterPS: Distributed deep learning with reinforcement learning based scheduling in heterogeneous environments." *Future Gener. Comput. Syst.* 148: 106-117, 2023.

55. Xuhong Li, Haoyi Xiong, Yi Liu, Dingfu Zhou, Zeyu Chen, Yaqing Wang, Dejing Dou. "Distilling ensemble of explanations for weakly-supervised pre-training of image segmentation models." *Mach. Learn.* 112(6): 2193-2209, 2023.

54. Xuhong Li, Haoyi Xiong, Siyu Huang, Shilei Ji, Dejing Dou. "Cross-model consensus of explanations and beyond for image classification models: an empirical study." *Mach. Learn.* 112(5): 1627-1662, 2023.

53. Xingjian Li, Abulikemu Abuduweili, Humphrey Shi, Pengkun Yang, Dejing Dou, Haoyi Xiong, Chengzhong Xu. "Semi-supervised transfer learning with hierarchical self-regularization. *Pattern Recognit.* 144: 109831, 2023.

52. Ji Liu, Lei Mo, Sijia Yang, Jingbo Zhou, Shilei Ji, Haoyi Xiong, Dejing Dou. "Data Placement for Multi-Tenant Data Federation on the Cloud." *IEEE Trans. Cloud Comput.* 11(2): 1414-1429, 2023.

51. Yuchen Li, Haoyi Xiong, Qingzhong Wang, Linghe Kong, Hao Liu, Haifang Li, Jiang Bian, Shuaiqiang Wang, Guihai Chen, Dejing Dou, Dawei Yin. "COLTR: Semi-Supervised Learning to Rank With Co-Training and Over-Parameterization for Web Search." *IEEE Trans. Knowl. Data Eng.* 35(12): 12542-12555, 2023.

50. Jiang Bian, Haoyi Xiong, Zhiyuan Wang, Jingbo Zhou, Shilei Ji, Hongyang Chen, Daqing Zhang, Dejing Dou. "$\mathcal{AFCS}$: Aggregation-Free Spatial-Temporal Mobile Community Sensing." *IEEE Trans. Mob. Comput.* 22(9): 5017-5034, 2023.

49. Jiamin Chen, Xuhong Li, Lei Yu, Dejing Dou, Haoyi Xiong. "Beyond Intuition: Rethinking Token Attributions inside Transformers." *Trans. Mach. Learn. Res.* 2023.

48. Xingjian Li, Haoyi Xiong, Cheng-Zhong Xu, Dejing Dou. "SMILE: Sample-to-feature Mixup for Efficient Transfer Learning." *Trans. Mach. Learn. Res.* 2023.

47. Ji Liu, Juncheng Jia, Beichen Ma, Chendi Zhou, Jingbo Zhou, Yang Zhou, Huaiyu Dai, Dejing Dou. "Multi-Job Intelligent Scheduling With Cross-Device Federated Learning." *IEEE Trans. Parallel Distributed Syst.* 34(2): 535-551, 2023.

46. Jiang Bian, Jizhou Huang, Shilei Ji, Yuan Liao, Xuhong Li, Qingzhong Wang, Jingbo Zhou, Dejing Dou, Yaqing Wang, Haoyi Xiong. "Feynman: Federated Learning-Based Advertising for Ecosystems-Oriented Mobile Apps Recommendation." *IEEE Trans. Serv. Comput.* 16(5): 3361-3372, 2023.

45. Xuhong Li, Haoyi Xiong, Xingjian Li, Xuanyu Wu, Zeyu Chen, and Dejing Dou. "InterpretDL: Explaining Deep Models in PaddlePaddle." *Journal of Machine Learning Research.* 23: 197:1-197:6. 2022.

44. Ji Liu, Lei Mo, Sijia Yang, Jingbo Zhou, Shilei Ji, Haoyi Xiong, and Dejing Dou. "Data Placement for Multi-Tenant Data Federation on the Cloud." *IEEE transactions on cloud computing* (TCC Journal, accepted). 2022.

43. Ji Liu, Jizhou Huang, Yang Zhou, Xuhong Li, Shilei Ji, Haoyi Xiong, and Dejing Dou. "From distributed machine learning to federated learning: a survey." *Knowl. Inf. Syst.* 64(4): 885-917, 2022

42. Xuhong Li, Haoyi Xiong, Xingjian Li, Xuanyu Wu, Xiao Zhang, Ji Liu, Jiang Bian, Dejing Dou. "Interpretable deep learning: interpretation, interpretability, trustworthiness, and beyond." *Knowl. Inf. Syst.* 64(12): 3197-3234, 2022

41. Jiang Bian, Abdullah Al Arafat, Haoyi Xiong, Jing Li, Li Li, Hongyang Chen, Jun Wang, Dejing Dou, and Zhishan Guo. "Machine Learning in Real-Time Internet of Things (IoT) Systems: A Survey." *IEEE Internet Things J.* 9(11): 8364-8386, 2022

40. Zhiyuan Wang, Haoyi Xiong, Jie Zhang, Sijia Yang, Mehdi Boukhechba, Daqing Zhang, Laura E. Barnes, Dejing Dou. "From Personalized Medicine to Population Health: A Survey of mHealth Sensing Techniques." *IEEE Internet Things J.* 9(17): 15413-15434, 2022.

39. Jie Zhang, Yang Li, Haoyi Xiong, Dejing Dou, Chunyan Miao, Daqing Zhang. "HandGest: Hierarchical Sensing for Robust-in-the-Air Handwriting Recognition With Commodity WiFi Devices." *IEEE Internet Things J.* 9(19): 19529-19544, 2022.

38. Haoran Liu, Haoyi Xiong, Yaqing Wang, Haozhe An, Dejing Dou, and Dongrui Wu. "Exploring the common principal subspace of deep features in neural networks." *Mach. Learn.* 111(3): 1125-1157 (2022)

37. Xingjian Li, Haoyi Xiong, Haozhe An, Cheng-Zhong Xu, Dejing Dou. "COLAM: Co-Learning of Deep Neural Networks and Soft Labels via Alternating Minimization." *Neural Process. Lett.* 54(6): 4735-4749 (2022)

36. Xingjian Li, Haoyi Xiong, Zeyu Chen, Jun Huan, Ji Liu, Cheng-Zhong Xu, and Dejing Dou. "Knowledge Distillation with Attention for Deep Transfer Learning of Convolutional Networks." *ACM Trans. Knowl. Discov. Data* 16(3): 42:1-42:20 (2022)

35. Yang Zhou, Jiaxiang Ren, Ruoming Jin, Zijie Zhang, Jingyi Zheng, Zhe Jiang, Da Yan, and Dejing Dou. "Unsupervised Adversarial Network Alignment with Reinforcement Learning." *ACM Trans. Knowl. Discov. Data* 16(3): 50:1-50:29 (2022)

34. Hao Liu, Qingyu Guo, Hengshu Zhu, Fuzhen Zhuang, Shenwen Yang, Dejing Dou, and Hui Xiong. "Who will Win the Data Science Competition? Insights from KDD Cup 2019 and Beyond." *ACM Trans. Knowl. Discov. Data* 16(5): 98:1-98:24 (2022)

33. Xingjian Li, Dou Goodman, Ji Liu, Tao Wei, and Dejing Dou. "Improving Adversarial Robustness via Attention and Adversarial Logit Pairing." *Frontiers Artif. Intell.* 4: 752831 (2021)

32. Kafeng Wang, Haoyi Xiong, Jie Zhang, Hongyang Chen, Dejing Dou, and Cheng-Zhong Xu. "SenseMag: Enabling Low-Cost Traffic Monitoring Using Noninvasive Magnetic Sensing." *IEEE Internet Things J.* 8(22): 16666-16679 (2021)

31. Haiyan Jiang, Haoyi Xiong, Dongrui Wu, Ji Liu, and Dejing Dou. "AgFlow: fast model selection of penalized PCA via implicit regularization effects of gradient flow." *Mach. Learn.* 110(8): 2131-2150 (2021)

30. Adam Noack, Isaac Ahern, Dejing Dou, and Boyang Li. "An Empirical Study on the Relation Between Network Interpretability and Adversarial Robustness." *SN Comput. Sci.* 2(1): 32, 2021.

29. Xingjian Li, Haoyi Xiong, Zeyu Chen, Jun Huan, Cheng-Zhong Xu, and Dejing Dou. "In-Network Ensemble: Deep Ensemble Learning with Diversified Knowledge Distillation." *ACM Trans. Intell. Syst. Technol.* 12(5): 63:1-63:19 (2021)

28. Kafeng Wang, Haoyi Xiong, Jiang Bian, Zhanxing Zhu, Qian Gao, Zhishan Guo, Cheng-Zhong Xu, Jun Huan, and Dejing Dou. "Sampling Sparse Representations with Randomized Measurement Langevin Dynamics." *ACM Trans. Knowl. Discov. Data* 15(2): 21:1-21:21 (2021)

27. Baoxin Zhao, Haoyi Xiong, Jiang Bian, Zhishan Guo, Cheng-Zhong Xu, and Dejing Dou. "COMO: Efficient Deep Neural Networks Expansion With COnvolutional MaxOut." *IEEE Trans. Multim.* 23: 1722-1730 (2021)

26. Sabin Kafle, Nisansa de Silva, and Dejing Dou 2020. "An Overview of Utilizing Knowledge Bases in Neural Networks for Question Answering." *Information Systems Frontiers*, 22(5): 1095-1111, 2020.

25. Pengwei Wang, Jun Yan, Lei Ji, Dejing Dou, Nisansa de Silva, Yang Zhang, Jie Bao, and Lianwen Jin 2018. "Concept and Attention Based CNN for Question Retrieval in Multi-View Learning." ACM *Transactions on Intelligent Systems and Technology*, Volume 9, Issue 4, Article 41, 2018.

24. NhatHai Phan, Xintao Wu, and Dejing Dou 2017. "Preserving Differential Privacy in Convolutional Deep Belief Networks." *Machine Learning Journal*, Volume 106, Number 9-10, pp. 1681-1704, 2017.

23. Fernando Gutierrez, Dejing Dou, Nisansa de Silva, and Steven Fickas 2017. "Online Reasoning for Semantic Error Detection in Text." *Journal on Data Semantics*, Volume 6, Number 3, pp.139-153, 2017

22. NhatHai Phan, Dejing Dou*, Hao Wang, David Kil, and Brigitte Piniewski 2017. "Ontology-based deep learning for human behavior prediction with explanations in health social networks." *Information Sciences* - Elsevier, Volume 384, pp. 298-313, 2017. (*Corresponding author)

21. Shangpu Jiang, Daniel Lowd, Sabin Kafle, and Dejing Dou* 2016 "Ontology Matching with Knowledge Rules." LNCS journal *Transactions on Large-Scale Data and Knowledge-Centered Systems*, Volume 28, pp. 75-95, 2016. (*Corresponding author)

20. Jingshan Huang, Karen Eilbeck, Barry Smith, Judith A. Blake, Dejing Dou, Weili Huang, Darren A. Natale, Alan Ruttenberg, Jun Huan, Michael T. Zimmermann, Guoqian Jiang, Yu Lin, Bin Wu, Harrison J. Strachan, Nisansa de Silva, Mohan Vamsi Kasukurthi, Vikash Kumar Jha, Yongqun He, Shaojie Zhang, Xiaowei Wang, Zixing Liu, Glen M. Borchert, and Ming Tan 2016 " The development of on-coding RNA ontology." *International Journal of Data Mining and Bioinformatics*. Volume 15, Issue 3, pp. 214-232, 2016.

19. Jingshan Huang, Fernando Gutierrez, Harrison J. Strachan, Dejing Dou, Weili Huang, Barry Smith, Judith A. Blake, Karen Eilbeck, Darren A. Natale, Yu Lin, Bin Wu, Nisansa de Silva, Xiaowei Wang, Zixing Liu, Glen M. Borchert, Ming Tan, and Alan Ruttenberg 2016. "OmniSearch: a semantic search system based on the Ontology for MIcroRNA Target (OMIT) for microRNA-target gene interaction data." *Journal of Biomedical Semantics*. Volume 7, Number 25, 2016.

18. Jingshan Huang, Karen Eilbeck, Barry Smith, Judith A. Blake, Dejing Dou, Weili Huang, Darren A. Natale, Alan Ruttenberg, Jun Huan, Michael T. Zimmermann, Guoqian Jiang, Yu Lin, Bin Wu, Harrison J. Strachan, Yongqun He, Shaojie Zhang, Xiaowei Wang, Zixing Liu, Glen M. Borchert, and Ming Tan 2016. "The Non-Coding RNA Ontology (NCRO): a comprehensive resource for the unification of non-coding RNA biology." *Journal of Biomedical Semantics*. Volume 7, Number 24, 2016.

17. NhatHai Phan, Dejing Dou*, Brigitte Piniewski, and David Kil 2016. "A deep learning approach for human behavior prediction with explanations in health social networks: social restricted Boltzmann machine (SRBM+)." *Social Network Analysis and Mining*. Volume 6, Number 1, pp. 79:1-79:14, 2016. (*Corresponding author)

16. NhatHai Phan, Javid Ebrahimi, David Kil, Brigitte Piniewski, and Dejing Dou* 2016. "Topic-aware Physical Activity Propagation with Temporal Dynamics in a Health Social Network." ACM *Transactions on Intelligent Systems and Technology*, Volume 8, Issue 1, Article 2, 2016. (*Corresponding Author)

15. Yelong Shen[§], NhatHai Phan[§], Xiao Xiao, Ruoming Jin, Junfeng Sun, Brigitte Piniewski, David Kil, and Dejing Dou* 2015. "Dynamic Socialized Gaussian Process Models for Human Behavior Prediction in a Health Social Network." *Knowledge and Information Systems*, Volume 49, Number 2, pp. 455-479, 2016. ([§]Co-first authors; *Corresponding author)

14. NhatHai Phan, Javid Ebrahimi, David Kil, Brigitte Piniewski, and Dejing Dou* 2015. "Topic-aware Physical Activity Propagation in a Health Social Network." IEEE *Intelligent*

Systems, special issue on Online Behavioral Analysis. Volume 31, Number 1, pp. 5-14, 2016. (*Corresponding Author)

13. Fernando Gutierrez, Dejing Dou, Stephen Fickas, Daya Wimalasuriya, and Hui Zong 2015. "A Hybrid Ontology-based Information Extraction System." *Journal of Information Science (JIS)*, Volume 42, Number 6, pp. 798-820, 2016.

12. Hao Wang, Tania Tudorache, Dejing Dou, Natalya F. Noy, and Mark A. Musen 2014. "Analysis and Prediction of User Editing Patterns in Ontology Development Projects." *Journal on Data Semantics*, Volume 4, Number 2, pp. 117-132, 2015.

11. Haishan Liu, Dejing Dou, and Hao Wang 2012. "Breaking the Deadlock: Simultaneously Discovering Attribute Matching and Cluster Matching with Multi-Objective Metaheuristics." *Journal on Data Semantics*, Volume 1, Number 2, pp. 133-145, 2012.

10. Haishan Liu, Gwen Frishkoff, Robert Frank, and Dejing Dou 2012. "Sharing and Integration of Cognitive Neuroscience Data: Metric and Pattern Matching across Heterogeneous ERP Datasets." *Neurocomputing*, Volume 92, September 2012, pp. 156-169, 2012.

9. Jingshan Huang, Christopher Townsend, Dejing Dou, Haishan Liu, and Ming Tan 2011. "OMIT: A Domain-Specific Knowledge Base for MicroRNA Target Acquisition." *Pharmaceutical Research* (impact factor: 4.5), Volume 28, Number 12, pp. 3101-3104, 2011.

8. Paea LePendu and Dejing Dou 2010. "Using Ontology Databases for Scalable Query Answering, Inconsistency Detection, and Data Integration." *Journal of Intelligent Information Systems (JIIS)*, Volume 37, Number 2, pp. 217-244, 2011.

7. Dejing Dou, Han Qin and Paea LePendu 2010. "OntoGrate: Towards Automatic Integration for Relational Databases and the Semantic Web through an Ontology-based Framework" *International Journal of Semantic Computing (IJSC)*, Volume 4, Number 1, pp. 123-151, 2010.

6. Daya C. Wimalasuriya and Dejing Dou 2010. "Ontology-Based Information Extraction: An Introduction and a Survey of Current Approaches." *Journal of Information Science (JIS)*, Volume 36, Number 3, pp. 306-323, 2010.

5. Gwen A. Frishkoff, Robert M. Frank, Jiawei Rong, Dejing Dou, Joseph Dien and Laura K. Halderman 2007. "A Framework to Support Automated Classification and Labeling of Brain Electromagnetic Patterns." *Computational Intelligence and Neuroscience (CIN), Special Issue, EEG/MEG Analysis and Signal Processing.* Volume 7, Number 3, pp. 1-13, 2007.

4. Jun Li, Dejing Dou, Zhen Wu, Shiwoong Kim and Vikash Agarwal 2005. "An Internet Routing Forensics Framework for Discovering Rules of Abnormal BGP Events." *ACM SIGCOMM Computer Communication Review* (acceptance ratio: 25%, 5/20). Volume 35, Number 5, pp. 58-66, 2005.

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42. Hao Wang, Dejing Dou, and Daniel Lowd 2016. "Ontology-based Deep Restricted Boltzmann Machine." In *Proceedings of the 27th International Conference on Database and Expert Systems Applications (DEXA 2016)*. pp. 431-445. September, 2016. (We are invited to submit an extended version of this paper to LNCS journal *Transactions on Large-Scale Data and Knowledge-Centered Systems* as one of best papers from the conference.)

41. Sabin Kafle and Dejing Dou 2016. "A Heterogeneous Clustering Approach for Human Activity Recognition." In *Proceedings of the 18th International Conference on Big Data Analytics and Knowledge Discovery (DaWaK 2016)*. pp. 68-81. September, 2016.

40. Javid Ebrahimi, NhatHai Phan, Dejing Dou, Brigitte Piniewski, and David Kil 2016. "Characterizing Physical Activity in a Health Social Network." In *Proceedings of the 6th ACM International Conference on Digital Health (DH 2016)*. pp. 123-129. April, 2016.

39. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2016. "A Probabilistic Approach to Knowledge Translation." In *Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI-16)* (acceptance ratio 26%: 549/2132). (Oral Presentation). pp. 1716-1722. February, 2016.

38. NhatHai Phan, Yue Wang, Xintao Wu, and Dejing Dou 2016. "Differential Privacy Preservation for Deep Auto-Encoders: an Application of Human Behavior Prediction." In *Proceedings of the 30th AAAI Conference on Artificial Intelligence (AAAI-16)* (acceptance ratio 26%: 549/2132). (Oral Presentation). pp. 1309-1316. February, 2016.

37. Jingshan Huang, Karen Eilbeck, Judith A. Blake, Dejing Dou, Darren A. Natale, Alan Ruttenberg, Barry Smith et al. 2015 "A Domain Ontology for the Non-coding RNA Field." In *Proceedings of the IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2015)* (short paper) (acceptance ratio: 18%, 64/346). pp. 621-624. November, 2015.

36. NhatHai Phan, Dejing Dou, Hao Wang, Brigitte Piniewski, and David Kil 2015. "Ontology-based Deep Learning for Human Behavior Prediction in Health Social Networks." In *Proceedings of the 6th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics. (ACM BCB 2015)* (acceptance ratio: 34%, 48/141). pp. 433-442. September, 2015. (We are invited to submit an extended version of this paper to *Journal of Biomedical and Health Informatics*.)

35. NhatHai Phan, Dejing Dou, Brigitte Piniewski, and David Kil 2015. "Social Restricted Boltzmann Machine: Human Behavior Prediction in Health Social Networks." In *Proceedings of the 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2015)* (acceptance ratio: 18%, 49/272). pp. 424-431. August, 2015. (**Received Recommendation for Best Research Paper Award**) (We are invited to submit an extended version of this paper to *Social Network Analysis and Mining Journal*.)

34. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2015. "Ontology Matching with Knowledge Rules." In *Proceedings of the 26th International Conference on Database and Expert Systems Applications (DEXA 2015)*, (acceptance ratio 32.8%: 41/125). pp. 94-108. September, 2015. (**Best Paper Award**) (We are invited to submit an extended version of this paper to LNCS journal *Transactions on Large-Scale Data and Knowledge-Centered Systems*.)

33. Hao Wang, Dejing Dou, Yue Fang, and Yongli Zhang 2015. "Mining Strongly Correlated Intervals with Hypergraphs." In *Proceedings of the 26th International Conference on Database and Expert Systems Applications (DEXA 2015)* (short paper). pp. 339-348. September, 2015.

32. Javid Ebrahimi and Dejing Dou 2015. "Chain Based RNN for Supervised Relation Extraction." In *Proceedings of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL-HLT 2015)* (short paper) (acceptance ratio 26%: 118 (long) + 70 (short) /723). pp. 1244-1249. May, 2015.

31. NhatHai Phan, Dejing Dou, Xiao Xiao, Brigitte Piniewski, and David Kil 2014. "Analysis of Physical Activity Propagation in a Health Social Network." In *Proceedings of the 23rd ACM Conference on Information and Knowledge Management (CIKM 2014)* (acceptance ratio: 20.8%, 95/457). pp. 1329-1338. November, 2014.

30. Fernando Gutierrez, Dejing Dou, Steven Fickas, and Gina Griffiths 2014. "Online Reasoning for Ontology-based Error Detection in Text." In *Proceedings of the 13th International Conference on Ontologies, Databases and Application of Semantics (ODBASE 2014)* (acceptance ratio: 31.9%, 15/47). pp. 562-579. October, 2014.

29. Haishan Liu, Dejing Dou, Ruoming Jin, Paea LePendu, and Nigam Shah 2013. "Mining Biomedical Ontologies and Data Using Hypergraphs." In *Proceedings of the 12th IEEE International Conference on Machine Learning and Applications (ICMLA 2013)*. (acceptance ratio: 26.3%, 35/133). pp. 141-146. December 2013.

28. Fernando Gutierrez, Dejing Dou, Steven Fickas, Adam Martini, and Hui Zong 2013. "Hybrid Ontology-based Information Extraction for Automated Text Grading." In *Proceedings of the 12th IEEE International Conference on Machine Learning and Applications (ICMLA 2013)* (short paper). pp. 359-364. December 2013.

27. Hao Wang, Tania Tudorache, Dejing Dou, Natalya F. Noy, and Mark A. Musen 2013. "Analysis of User Editing Patterns in Ontology Development Projects." In *Proceedings of the 12th International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2013).* (acceptance ratio: 28%, 14/50). LNCS 8185, pp. 470-487. September, 2013. (We are invited to submit an extended version of this paper to *Journal on Data Semantics*.)

26. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2012. "Learning to Refine an Automatically Extracted Knowledge Base Using Markov Logic." In *Proceedings of the 12th IEEE International Conference on Data Mining (ICDM 2012)* (short paper). (acceptance ratio: 20%, 78(full paper)+73(short paper)/756). pp. 912-917. December, 2012.

25. Yelong Shen, Ruoming Jin, Dejing Dou, Nafisa Afrin Chowdhury, Junfeng Sun, Brigitte Piniewski, and David Kil 2012. "Socialized Gaussian Process Model for Human Behavior Prediction in a Health Social Network." In *Proceedings of the 12th IEEE International Conference on Data Mining (ICDM 2012)* (short paper). (acceptance ratio: 20%, 78(full paper)+73(short paper)/756). pp. 1110-1115. December, 2012.

24. Fernando Gutierrez, Dejing Dou, Steven Fickas, and Gina Griffiths 2012. "Providing Grades and Feedback for Student Summaries by Ontology-based Information Extraction." In *Proceedings of the 21st ACM Conference on Information and Knowledge Management (CIKM 2012)* (short paper) (acceptance ratio: 27.7%, 146 (full paper) + 156 (short paper)/1088). pp. 1722-1726. October, 2012.

23. Nafisa Afrin Chowdhury and Dejing Dou 2012. "Evaluating Ontology Matchers Using Arbitrary Ontologies and Human Generated Heterogeneities." In *Proceedings of the 11th International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2012).* (acceptance ratio: 29%, 15/52). LNCS 7566, pp. 664-681. September, 2012.

22. Haishan Liu, Paea LePendu, Ruoming Jin, and Dejing Dou 2011. "A Hypergraph-based Method for Discovering Semantically Associated Itemsets." In *Proceedings of the 11th IEEE International Conference on Data Mining (ICDM 2011)* (acceptance ratio: 12.8%, 101/786). pp. 398-406. December, 2011.

21. Chang-Hwan Lee, Fernando Gutierrez, and Dejing Dou 2011. "Calculating Feature Weights in Naive Bayes with Kullback-Leibler Measure." In *Proceedings of the 11th IEEE International Conference on Data Mining (ICDM 2011)* (short paper). (acceptance ratio: 18.8%, 101(full paper)+47(short paper)/786). pp. 1146-1151. December, 2011.

20. Haishan Liu and Dejing Dou 2011. "Breaking the Deadlock: Simultaneously Discovering Attribute Matching and Cluster Matching with Multi-Objective Simulated Annealing." In *Proceedings of the 10th International Conference on Ontologies, Databases and Application*

of SEmantics (ODBASE 2011). (acceptance ratio: 31%, 9/29) LNCS 7045, pp. 698-715. October, 2011.

19. Nafisa Afrin Chowdhury and Dejing Dou 2011. "Improving the Accuracy of Ontology Alignment through Ensemble Fuzzy Clustering." In *Proceedings of the 10th International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2011)* (short paper). LNCS 7045, pp. 826-833. October, 2011.

18. Dejing Dou, Han Qin, and Haishan Liu 2011. "Semantic Translation for Rule-based Knowledge in Data Mining." In *Proceedings of the 22nd International Conference on Database and Expert Systems Applications (DEXA 2011), part II.* (acceptance ratio: 25%, 52/207) LNCS 6861, pp. 74-89, August, 2011.

17. Han Qin, Dejing Dou, and Yue Fang 2010. "Financial Forecasting with Gompertz Multiple Kernel Learning." In *Proceedings of the 10th IEEE International Conference on Data Mining (ICDM 2010)* (short paper). (acceptance ratio: 19.4%, 72(regular paper)+83(short paper)/797). pp. 983-988, December, 2010.

16. Daya Wimalasuriya and Dejing Dou 2010. "Components for Information Extraction: Ontology-Based Information Extractors and Generic Platforms." In *Proceedings of the 19th ACM Conference on Information and Knowledge Management (CIKM 2010)* (acceptance ratio: 13.4%, 127/945). pp. 9-18, October, 2010.

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14. Daya Wimalasuriya and Dejing Dou 2009. "Using Multiple Ontologies in Information Extraction." In *Proceedings of the 18th ACM Conference on Information and Knowledge Management (CIKM 2009)* (acceptance ratio: 14.5%, 123/847). pp. 235-244, November, 2009.

13. Paea LePendu, Dejing Dou and Doug Howe 2009. "Detecting Inconsistencies in the Gene Ontology using Ontology Databases with Not-gadgets" In *Proceedings of the International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2009)* (acceptance ratio: 24.6%, 16/65). LNCS 5871, pp. 948-965, November, 2009.

12. Gwen Frishkoff, Paea LePendu, Robert Frank, Haishan Liu and Dejing Dou 2009. "Development of Neural Electromagnetic Ontologies (NEMO): Ontology-based Tools for Representation and Integration of Event-related Brain Potentials." In *Proceedings of the International Conference on Biomedical Ontology (ICBO 2009).* pp. 31-34, July, 2009.

11. Paea LePendu, Dejing Dou, Jiawei Rong and Gwen Frishkoff 2008. "Ontology Database: a New Method for Semantic Modeling and an Application to Brainwave Data." In *Proceedings of the 20th International Conference on Scientific and Statistical Database Management (SSDBM 2008)* (acceptance ratio: 34.5%, 29/84). LNCS 5069, pp. 313-330, July, 2008.

10. Jun Li, Dejing Dou, Shiwoong Kim, Han Qin and Yibo Wang 2007. "On Knowledge-Based Classification of Abnormal BGP Events." In *Proceedings of International Conference on Information Systems Security (ICISS 2007)* (short paper). LNCS 4812, pp. 267-271, December, 2007.

9. Han Qin, Dejing Dou and Paea LePendu 2007. "Discovering Executable Semantic Mappings Between Ontologies." In *Proceedings of the International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2007).* (acceptance ratio: 23.5%, 19/81). LNCS 4803, pp. 832-849, November, 2007.

8. Dejing Dou, Gwen Frishkoff, Jiawei Rong, Robert Frank, Allen Malony and Don Tucker 2007. "Development of NeuroElectroMagnetic Ontologies (NEMO): A Framework for Mining Brainwave Ontologies." In *Proceedings of the 13th ACM International Conference on Knowledge Discovery and Data Mining (KDD'07).* (acceptance ratio for full presentation: 8%, 40/513). pp. 270-279, August, 2007. (**A Candidate for Best Research Paper Award**).

7. Jongwan Kim, Dejing Dou, Haishan Liu and Donghwi Kwak 2007. "Constructing A User Preference Ontology for Anti-spam Mail Systems." In *Proceedings of the 20th Canadian Conference on Artificial Intelligence (Canadian AI'07).* (acceptance ratio: 17.7%, 46/260). LNCS/LNAI 4509, pp. 272-283, May, 2007.

6. Dejing Dou, Jun Li, Han Qin, Shiwoong Kim and Sheng Zhong 2007. "Understanding and Utilizing the Hierarchy of Abnormal BGP Events." In *Proceedings of SIAM International Conference on Data Mining 2007 (SDM 2007)* (short paper). (acceptance ratio: 25%, 36(full paper)+39(short paper)/300). pp. 467-472, April, 2007.

5. Daya Wimalasuriya, Sridhar Ramachandran and Dejing Dou 2007. "Clustering Zebrafish Genes Based on Frequent-Itemsets and Frequency Levels." In *Proceedings of Pacific-Asia Conference on Knowledge Discovery and Data Mining 2007 (PAKDD 2007)* (short paper). (acceptance ratio: 17.67%, 34(regular paper)+92(short paper)/730). LNCS 4426, pp. 912-920, May, 2007.

4. Dejing Dou and Drew McDermott 2006a. "Deriving Axioms Across Ontologies." In *Proceedings of International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS'06)* (short paper) (acceptance ratio: 47.6%, [127(full paper)+135(short paper)]/550). pp. 952-954, May, 2006. (We are invited to submit an extended version of this paper to the post-proceedings of DALT 2006.)

3. Dejing Dou and Paea LePendu 2006. "Ontology-based Integration for Relational Databases." In *Proceedings of ACM Symposium on Applied Computing (SAC) 2006 (DBTTA Track)* (acceptance ratio: 32.4%, 300/927). pp. 461-466, April, 2006.

2. Dejing Dou, Drew McDermott, and Peishen Qi 2003. "Ontology Translation on the Semantic Web." In *Proceedings of Internationl Conference on Ontologies, Databases and Applications of SEmantics (ODBASE 2003)* (acceptance ratio: 23.3%, 27/116). LNCS 2888, Springer-Verlag 2003, pp. 952-969, November, 2003. (We are invited to submit an extended version of this paper to *Journal on Data Semantics*.)

1. Drew McDermott and Dejing Dou 2002. "Representing disjunction and quantifiers in RDF." In *Proceedings of International Semantic Web Conference (ISWC 2002)*(acceptance ratio: 30.1%, 40/133). LNCS 2342, Springer-Verlag 2002, pp. 250-263, June, 2002.

Invited Papers

4. Sabin Kafle, Nisansa de Silva, Dejing Dou 2019. "An Overview of Utilizing Knowledge Bases in Neural Networks for Question Answering." In *Proceedings of the 20th IEEE International Conference on Information Reuse and Integration for Data Science (IRI 2019)*. (Invited Paper), pp. 326-333, July/August, 2019.

3. Dejing Dou, Hao Wang, and Haishan Liu 2015. "Semantic Data Mining: A Survey of Ontology-based Approaches." In *Proceedings of the 9th IEEE Conference on Semantic Computing (ICSC 2015)*. (Invited Paper), pp. 244-251. February, 2015.

2. Dejing Dou and Drew McDermott 2006b. "Towards Theory Translation." In *Post-Proceedings of The 4th International Workshop on Declarative Agent Languages and Technologies (DALT 2006)* (Invited Paper) LNCS/LNAI 4327, Springer-Verlag 2006, pp. 16-28. December, 2006.

1. Dejing Dou, Drew McDermott and Peishen Qi 2005b "Ontology Translation by Ontology Merging and Automated Reasoning." In *Ontologies for Agents: Theory and Experiences*, (Whitestein Series in Software Agent Technologies and Autonomic Computing) (best papers from the proceedings of OAS2002, OMAS2002 and OAS2003), pp. 73-94. March, 2005.

Peer Reviewed Workshop Papers

10. Daxiang Dong, Ji Liu, Xi Wang, Weibao Gong, An Qin, Xingjian Li, Dianhai Yu, Patrick Valduriez, and Dejing Dou. "Elastic Deep Learning Using Knowledge Distillation with Heterogeneous Computing Resources." In *Euro-Par Workshops 2021*. pp. 116-128, 2021.

9. Jingshan Huang, Fernando Gutierrez, Dejing Dou, Judith A. Blake, Karen Eilbeck, Darren A. Natale, Barry Smith et al. 2015 "A Semantic Approach for Knowledge Capture of MicroRNA-target Gene Interactions." In *Proceedings of BIBM'15 2015 International Workshop on Biomedical and Health Informatics*. pp. 975-982. November, 2015.

8. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2015. "A Probabilistic Approach to Knowledge Translation." In *Proceedings of the fifth Statistical Relational AI Workshop at UAI '15 (StaRAI-15)*. July, 2015.

7. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2015. "Ontology Matching with Knowledge Rules." In *Proceedings of the fifth Statistical Relational AI Workshop at UAI '15 (StaRAI-15)*. July, 2015.

6. Shangpu Jiang, Daniel Lowd, and Dejing Dou 2012. "Using Markov Logic to Refine an Automatically Extracted Knowledge Base." In *Proceedings of the 2nd Statistical Relational AI Workshop at UAI '12 (StaRAI-12)*. August, 2012.

5. Haishan Liu and Dejing Dou 2008. "An Exploration of Understanding Data Heterogeneity through Data Mining." In *Proceedings of KDD'08 Workshop on Mining Multiple Information Sources (ACM MMIS 2008).* pp. 18-25. August, 2008.

4. Jiawei Rong, Dejing Dou, Gwen Frishkoff, Robert Frank, Don Tucker and Allen Malony 2007. "A Semi-automatic Framework for Mining ERP Patterns." In *Proceedings of the 2007 IEEE International Symposium on Data Mining and Information Retrieval (IEEE DMIR-07).* pp. 329-334. May, 2007.

3. Dejing Dou, Jeff Z. Pan, Han Qin and Paea LePendu 2006. "Towards Populating and Querying the Semantic Web." In *Proceedings of 2nd International workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2006)* (acceptance ratio: 60%, 9/15), pp. 129-142, co-located with ISWC 2006, November, 2006.

2. Dejing Dou, Paea LePendu, Shiwoong Kim and Peishen Qi 2006. "Integrating Databases into the Semantic Web through an Ontology-based Framework." In *Proceedings of the third International Workshop on Semantic Web and Databases (SWDB'06)* (acceptance ratio for full paper: 23.8%, 5/21), pp. 54 (Electronic publication, 10 pages), co-located with ICDE 2006, April, 2006.

1. Dejing Dou, Drew McDermott, and Peishen Qi 2002 "Ontology Translation by Ontology Merging and Automated Reasoning." In *Proceedings of EKAW2002 Workshop on Ontologies for Multi-Agent Systems (OMAS 2002).* pp. 3-18, October, 2002. (We are invited to submit an extended version to a volume of best papers from the proceedings of OAS2002, OMAS2002 and OAS2003.)

Posters

8. Fernando Gutierrez, Daya C. Wimalasuriya, and Dejing Dou 2011. "Using Information Extractors with the Neural ElectroMagnetic Ontologies." In *Proceedings of the 10th International Conference on Ontologies, Databases and Application of SEmantics (ODBASE 2011)* (poster paper). LNCS 7046, pp. 31-32. October, 2011.

7. Haishan Liu, Gwen Frishkoff, Robert Frank and Dejing Dou 2009. "Mapping ERP patterns from heterogeneous datasets: A simulation study." *Poster in the 15th Annual Meeting of the Organization for Human Brain Mapping.* June, 2009.

6. Gwen Frishkoff, Robert Frank, Haishan Liu and Dejing Dou 2008. "Combining top-down and bottom-up methods for ERP pattern classification." *Poster and* ***Invited Oral Presentation*** *in the 14th Annual Meeting of the Organization for Human Brain Mapping.* June, 2008.

5. Jiawei Rong, Dejing Dou, Gwen Frishkoff, Robert Frank, Allen Malony and Don Tucker 2007. "A Semi-automatic Framework for Mining ERP Patterns." *Poster in the 13th Annual Meeting of the Organization for Human Brain Mapping.* June, 2007.

4. Robert Frank, Gwen Frishkoff, Dejing Dou 2007. "An automated system for EM pattern separation, classification, and labeling." *Poster in the 13th Annual Meeting of the Organization for Human Brain Mapping.* June, 2007.

3. Gwen Frishkoff, Dejing Dou, Paea LePendu, Allen Malony and Don Tucker 2006. "The Neural ElectroMagnetic Ontology (NEMO) System: Design and Implementation of a Sharable EEG/MEG Database with ERP ontologies." *Poster in the 12th Annual Meeting of the Organization for Human Brain Mapping.* June, 2006.

2. Dejing Dou and Paea LePendu 2005. "Ontology-based Integration for Relational Data." In *Proceedings of International Conference on Ontologies, Databases and Applications of SEmantics (ODBASE 2005)* (poster paper) (acceptance ratio: 36.8%, [25(full paper)+7(short paper)+10(poster paper)]/114). LNCS 3762, Springer-Verlag 2005, pp. 35-36, November, 2005.

1. Dejing Dou, Drew McDermott, and Peishen Qi 2003 "Ontology Translation: Available Today." In *Posters and Demonstrations of International Semantic Web Conference* (ISWC2003). pp. 43-44, October, 2003.

PATENTS

A complete list of applied and granted US patents can be referred to:
`https://assignment.uspto.gov/patent/index.html#/patent/search/result?id=Dejing%20Dou&type=patAssignorName`

4. REGION INFORMATION PROCESSING METHOD AND APPARATUS
   Issue Date: 11/21/2023
   United States Patent Number 11822581
   Inventors: Xinjiang Lu and Dejing Dou

3. METHOD FOR GENERATING ELECTRONIC REPORT, ELECTRONIC DEVICE, AND STORAGE MEDIUM
   Issue Date: 5/23/2023
   United States Patent Number 11657550
   Inventors: Yanyan Li, Airong Jiang, Dejing Dou

2. METHOD, APPARATUS, ELECTRONIC DEVICE AND STORAGE MEDIUM FOR DATA PROCESSING
   Issue Date: 3/7/2023
   United States Patent Number 11599594
   Inventors: Yaqing Wang and Dejing Dou

1. Detecting Semantic Errors in Text Using Ontology-Based Extraction Rules
   Issue Date: 9/13/2016

United States Patent Number 9442917
Inventors: Dejing Dou and Steven Fickas

STUDENTS, POSTDOCS, VISITING SCHOLARS

Former Thesis Students and Postdocs (Primary Advisor)

- Nisansa de Silva (Ph.D. Thesis: *Semantic Oppositeness for Inconsistency and Disagreement Detection in Natural Language*, June, 2020, Senior Lecturer, University of Moratuwa, Sri Lanka)
- Peter Lovett (B.S. Honors Thesis: *An Exploration of Style Transfer Through Iterative Editing*, June, 2019, PhD Student, University of Arizona)
- Jiazhen Cao (B.S. Honors Thesis: *A Case Study for Predicting in-Hospital Mortality by Utilizing the Hyperbolic Embedding of ICD-9 Medical Ontology*, June, 2019, Masters Student, CMU)
- Yehui Zhang (M.S. Thesis: *Prediction of ICD-9 Code Assignment Using Attention-based Convolutional Neural Networks*, January, 2019, Software Engineer, Google)
- Javid Ebrahimi (Ph.D. Thesis: *Robustness of Neural Networks for Discrete Input: An Adversarial Perspective*, co-advised with Daniel Lowd, December, 2018, Research Scientist, Visa Research)
- Shravan Kale (M.S. Thesis: *Understanding Perceived Sense of Movement In Static Visuals Using Deep Learning*, June, 2018, Research Assistant, University of Oregon)
- Yang Zhou (Research Associate on *Graph Embedding and Deep Learning*, April to July, 2017; Assistant Professor, Auburn University)
- NhatHai Phan (Postdoc Research Associate on *Social Network Analysis, Deep Learning, and Health Informatics*, 2013 - 2016; Assistant Professor, New Jersey Institute of Technology)
- Fernando Gutierrez (Ph.D. Thesis: *A Hybrid Approach for Ontology-based Information Extraction*, December, 2015; Postdoc, Adolfo Ibanez University, Chile)
- Shangpu Jiang (Ph.D. Thesis: *Knowledge Base Refinement and Knowledge Translation with Markov Logic Networks*, co-advised with Daniel Lowd, November, 2015; Software Engineer, Google)
- Adam Martini (B.S. Honors Thesis: *Integrating Metadata and Data Syntax Translation*, June 2013)
- Haishan Liu (Ph.D. Thesis: *A Graph-based Approach for Semantic Data Mining*, August 2012; Senior Software Engineer, LinkedIn)

- Daya Wimalasuriya (Ph.D. Thesis: *Use of Ontologies in Information Extraction*, January 2011; Software Development Engineer, Amazon.com, Inc.)
- Paea LePendu (Ph.D. Thesis: *Ontology Databases*, January 2010; Postdoc, Stanford University)
- Amanda Hosler (B.S. Honors Thesis: *Using Inductive Logic Programming to Map Ontologies: First Steps towards InductiveMerge*, June 2006)

Former Research Students (Primary Advisor)

- Qiuhao Lu (Ph.D. student 2018-2021), Amir Veyseh (Ph.D. student 2018-2021), Adam Noack (Ph.D. student 2018-2021), Isaac Ahern (Ph.D. student 2019-2021), Gong Zhang (Ph.D. student 2019-2021), Amnay Amimeur (Ph.D. student 2015-2018), Sabin Kafle (Ph.D. student 2013-2017), Hao Wang (Ph.D. student 2011-2016), Adam Martini (MS'14, NSF REU student 2012-2013, Concentric Sky), Nafisa Chowdhury (MS'11, Ph.D. student 2011-2013, Intel), Jing Tian (Ph.D. student 2012-2013), Hang Xu (BS'11), Vincent Yip (Ph.D. student 2010-2011), Han Qin (Ph.D. student 2005-2010, Facebook), David Lebech (MS'10), Brad Pitcher (MS'09), Jiawei Rong (MS'08, Ph.D. student 2005-2008, Microsoft), Jigme Tenzing (MS'08), Donghwi Kwak (MS student 2005-2007), Mike Matloff (BS'06), Shiwoong Kim (MS'06), Darren Brown (Ph.D. student 2005), Vikash Agarwal (MS'05, Cisco Systems).

Former Visiting Scholars (Primary Advisor)

- Chang-Hwan Lee (visiting scholar from DongGuk University, Korea; 2009-2011)
- Jongwan Kim (visiting scholar from Daegu University, Korea; 2006-2008)

Other Students (Committee Member)

- Kanika Sood (Ph.D.'19), Sara Riazi (Ph.D.'19), Amirmohammad Rooshenas (Ph.D.'17), MohamadAli Torkamani (Ph.D.'16), Kanika Sood, Amirmohammad Rooshenas, Adnan Salman (Ph.D.'09), Jeremy Ludwig (Ph.D.'08), Kai Li (Ph.D.'07), Peter Boothe, John Frishkio-Lasseter (Ph.D.'06), Mahshid Yar Mohammadi, Victor Hanson-Smith,

ACADEMIC ACTIVITIES:

Program Chairs

- Program co-chairs for the 2023 IEEE International Conference on Big Data (Industry and Government Track), Sorrento, Italy. December, 2023.
- Program co-chairs for the 19th IEEE International Conference on Machine Learning and Applications (ICMLA), Orlando, FL. December, 2020.

- Technical Program co-chairs for the 1st Forum on Frontiers of Science and Engineering (FFSE): Everything towards AI, Seattle, WA. May, 2018.
- Program co-chairs for the 12th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2013), Graz, Austria. September, 2013.
- Program co-chairs for the 30th IEEE International Performance Computing and Communication Conference (IPCCC 2011), Orlando, Florida, USA. November, 2011.
- Program co-chairs for the Second International Symposium on Data, Privacy, & E-Commerce (ISDPE 2010), Buffalo/Niagara Falls, New York, USA. September, 2010

Organizing Committee, Area Chairs, Senior Program Committee Members

- Area Chair for the he Applied Science Track (ADS) of KDD 2024, August, 2024.
- Area Chair for the Applied Data Science (ADS) track of ECMLPKDD 2024, September, 2024.
- Area Chair for the he Applied Science Track (ADS) of KDD 2023, August, 2023.
- Area Chair for the Applied Data Science (ADS) track of ECMLPKDD 2023, July, 2023.
- Area Chair for Thirty-Sixth Conference on Neural Information Processing Systems (NeurIPS 2022), December, 2022.
- Leading Organizer of KDD Cup 2022 ("Spatial Dynamic Wind Power Forecasting Challenge"), August, 2022.
- Area Chair for Thirty-Fifth Conference on Neural Information Processing Systems (NeurIPS 2021), December, 2021.
- Senior Program Committee member for the Thirtieth International Joint Conference on Artificial Intelligence (IJCAI 2021) , August, 2021.
- Co-General Chair of NeurIPS-20 Workshop on Scalability, Privacy, and Security in Federated Learning (SpicyFL 2020), December, 2020.
- Senior Program Committee member for the Thirty-fourth AAAI Conference on Artificial Intelligence (AAAI 2020), February, 2020.
- Finance Chair for the IEEE International Conference on Data Mining (ICDM 2019), November, 2019.
- Co-General Vice-Chair for the 36th IEEE International Performance Computing and Communications Conference (IPCCC), December, 2017.
- Panel Co-chair for the 10th IEEE International Conference on Semantic Computing (ICSC 2017), San Diego, California, USA. January/February, 2017.

- Area Chair for the IEEE International Conference on Tools with Artificial Intelligence (ICTAI), November, 2016.
- Co-chair of the best paper award committee for the 10th IEEE International Conference on Semantic Computing (ICSC 2016), Laguna Hills, California, USA. February, 2016.
- Senior Program committee member for the IEEE International Conference on Healthcare Informatics (ICHI 2015), October, 2015.
- Co-Founder of the International Consortium for EEG/ERP Ontology Development and Data Sharing, October, 2006.

Program Committee Members

- Program Committee member for the AAAI Conference on Artificial Intelligence (AAAI) 2021, 2020, 2019.
- Program committee member for the International Conference on Big Data & Analytics (BDA) 2013.
- Program committee member for the International Congress on Computer Applications and Computational Science (CACS) 2010.
- Program committee member for the ACM International Conference on Information and Knowledge Management (CIKM) 2019 (Long and Short Paper Tracks), 2016 (Industry Track), 2011, 2010.
- Program committee member for the International Conference on Computational Intelligence and Security (CIS) 2008.
- Program committee member for the International Conference on Data Management Technologies and Applications (DATA) 2014.
- Program committee member for the International Conference on Data Warehousing and Knowledge Discovery (DaWaK) 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011.
- Program committee member for the International Conference on Database and Expert Systems Applications (DEXA), 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009.
- Program committee member for the IEEE International Conference on Data Science and Advanced Analytics (DSAA) 2017, 2016, 2015, 2014.
- Program committee member for the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD) 2010, 2008.
- Program committee member for the European Intelligence and Security Informatics Conference (EISIC) 2011.

- Program committee member for the Conference on Empirical Methods in Natural Language Processing (EMNLP) 2022.
- Program committee member for the European Semantic Web Conference (ESWC), 2018 (Research, Workshops and Tutorials), 2016, 2015.
- Program committee member for the IEEE-GrC (Granular Computing Conference) 2009, 2008, 2007, 2006.
- Program committee member for the annual IEEE International Conference on High Performance Computing (HiPC) 2018.
- Program committee member for the IEEE International Conference on Big Knowledge (ICBK) 2017.
- Program committee member for the IEEE International Conference on Data Mining (ICDM) 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2011, 2010, 2009.
- Program committee member for the IEEE International Conference on Healthcare Informatics (ICHI) 2016.
- Program committee member for the International Conference on Machine Learning (ICML) 2021.
- Program committee member for the IEEE International Conference on Machine Learning and Applications (ICMLA) 2019, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010.
- Program committee member of the International Conference on Man-Machine Interactions (ICMMI) 2015, 2013, 2011.
- Program committee member for the International Semantic Web Conference (ISWC) 2021, 2020.
- Program committee member for the International Joint Conference on Artificial Intelligence (IJCAI) 2021, 2020, 2019, 2018, 2011.
- Program committee member for the IEEE International Performance Computing and Communication Conference (IPCCC) 2009.
- Program committee member for the Joint International Semantic Technology Conference (JIST) 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011.
- Program committee member for the ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2021, 2020, 2019, 2018, 2016, 2013 (Demo Track), 2008.
- Program committee member for the International Conference on Knowledge Discovery and Information Retrieval (KDIR) 2015, 2014, 2013, 2012, 2011, 2010, 2009.
- Program committee member for the Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) 2021

- Program committee member for the International conference on Ontologies, DataBases, and Applications of Semantics (ODBASE) 2016, 2015, 2012,
- Program committee member for the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2020, 2018, 2017, 2016, 2015, 2014, 2012, 2009.
- Program committee member for the SIAM International Conference on Data Mining (SDM) 2009, 2008.
- Program committee member for the Scientific and Statistical Database Management Conference (SSDBM) 2011.
- Program committee member for Conference on Technologies and Applications of Artificial Intelligence (TAAI) 2013, 2012, 2011.
- Program committee member for the APWeb-WAIM Joint Conference on Web and Big Data (APWeb-WAIM) 2018, 2017, 2016, 2015, 2014, 2013.
- Program committee member for International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH), in Conjunction with VLDB 2017, 2016, 2015.
- Program committee member for the First International Symposium on Data, Privacy, and E-Commerce (ISDPE'07), August, 2007.
- Program committee member for the first International workshop on Knowledge Discovery and Data Mining Meets Linked Open Data (Know@LOD) co-located with ESWC 2012, May, 2012.
- Program committee member for the ICDM-09 Workshop on Mining Multiple Information Sources (MMIS) 2009.
- Program committee member for the KDD-08 Workshop on Mining Multiple Information Sources (MMIS) 2008.
- Program committee member for the 2005 IEEE-ICDM Workshop on MultiAgent Data Warehousing and MultiAgent Data Mining, October, 2005.
- Program committee member for the AAAI'07 Workshop on Semantic E-Science, July, 2007.
- Program committee member for the 2008 AAAI Spring Symposium Series on Semantic Scientific Knowledge Integration (SSKI) 2008.
- Program committee member for WWW 2008 Posters, April, 2008.

Grant Proposal Review

- Panelist (Scientific Chair) for NIH/NIDA SBIR, July, 2019.
- Panelist for NIH/NCATS, May, 2019.

- Grant Review for NSF IIS, March, 2019.
- Panelist for NIH/NCATS, February, 2019.
- Panelist for NSF FW-HTF, June, 2018.
- Panelist for NIH CSR/SEP, November, 2017.
- Panelist for NSF BIGDATA, June, 2017.
- Grant Review for JDRF, April, 2017.
- Grant Review for the Netherlands Organization for Scientific Research (NWO), April, 2017.
- Grant Review for NIH CSR/SEP, February, 2017.
- Panelist for NIH CSR/BD2K, October, 2016.
- Grant Review for CRDF Global, August, 2016.
- Review Panelist for NIH CSR/BCHI, June, 2016.
- Panelist for NIH CSR/BD2K, February, 2016.
- Grant Review for Medical Research Council (UK), January, 2015.
- Grant Review for NSF CBET, May, 2014.
- Review Panelist for NIH/NCATS, April/May, 2013.
- Panelist for NSF IIS, January, 2013.
- Grant Review for the Council for Physical Sciences of the Netherlands Organization for Scientific Research (NWO), November, 2012.
- Panelist for the NIH BDMA Study Section, October, 2012.
- Grant Review for NSF IIS, July, 2012.
- Grant Review for CHIST-ERA, French National Research Agency (ANR), March, 2012.
- Grant Review for Maryland Technology Transfer and Commercialization Program, 2011.
- Grant Review for LSU Gulf Research Initiative funded by BP, 2011.
- Grant Review for Louisiana Board of Regents, December, 2008.
- Panelist for NSF CDI, February, 2008.
- Panelist for NSF IIS, February, 2008.
- Panelist for NSF IIS, June, 2007.
- Panelist for NSF OCI, April, 2007.
- Grant Review as a suggested Expert for The Netherlands Organization for Scientific Research (NWO), February, 2007.

Editorships of Journals

- Editor-in-Chief of AIMS Electronic Research Archive, 2021 -
- Editorial Board of PLOS ONE, 2017 -
- Editorial Board of Journal of Intelligent Information Systems (JIIS), Springer, 2014 -
- Leading Guest Editor for Special Issue on ODBASE 2013 Selected Papers for Journal on Data Semantics, Springer, 2014.
- Leading Guest Editor for Special Issue on "Medical and Health Data Analysis in the Age of Big Data" of Computational and Mathematical Methods in Medicine, Hindawi, 2013.
- Editorial Board of Journal on Data Semantics (JoDS), Springer, 2011 -

Paper Review for Journals and Conferences

- ACM Computing Reviews: December, 2015; August, 2014; January, 2013;
- Journal of Ambient Intelligence and Humanized Computing: February, 2012;
- International Journal on Artificial Intelligence Tools: August, 2015;
- Journal of Biomedical Informatics (JBI): October, 2007;
- IEEE Journal of Biomedical and Health Informatics (JBHI): September, 2015;
- International Journal of Computers and Applications: August, 2015;
- Computers in Biology and Medicine (CBM): May, 2017; September, 2015;
- Journal of Computer Science and Technology: October, 2013;
- Data & Knowledge Engineering (DKE) Journal: May, 2016; February, 2013; December, 2010; June, 2010; July, 2009; May, 2009; November, 2007;
- International Journal of Data Mining and Bioinformatics: December, 2005;
- Journal on Data Semantics (JoDS): September, 2015; October, 2014; July, 2012; March, 2012; August, 2011;
- Engineering Applications of Artificial Intelligence: May, 2012;
- Journal of Healthcare Engineering: January, 2014;
- Journal Intelligent Information Systems (JIIS): May, Feb, 2017; October, August, April, 2016; April, 2015; December, 2014; September, 2013; April, 2013; August, 2012; June, 2012; July, 2011; May, 2011; October, 2010; February, 2010; September, 2009; June, 2009;
- International Journal of Information Technology and Decision Making (IJITDM): January, 2012;

- Knowledge Engineering Review: May, 2017;
- Knowledge and Information Systems (KAIS): June, 2016; March, 2015; February, 2014; January, 2013; November, 2010; October, 2009;
- LNCS Transactions on Large-Scale Data and Knowledge-Centered Systems: March, 2014;
- Journal of Machine Learning Research (JMLR) March, 2017;
- Neural Computing and Applications: January, 2017;
- Journal of Neuroscience Methods: October, 2012;
- Pattern Recognition Letters: April, 2012;
- International Journal of Physical Sciences: September, 2013;
- PLOS ONE: January, 2016; October, 2015; August, 2015; June, 2015;
- Statistical Analysis and Data Mining (SAM) Journal: May, 2008;
- Security and Communication Networks (SCN) Journal: March, 2011;
- Social Network Analysis and Mining (SNAM) Journal: November, 2015;
- Journal of Systems Science and Systems Engineering: September, 2014;
- International Journal on Semantic Web and Information Systems: December, 2004;
- Scientific World Journal: June, 2015;
- IEEE Transactions on Knowledge and Data Engineering (TKDE): August, 2016; July, 2015; July, 2014; October, 2012; December, 2011; May, 2007
- IEEE Transactions on Systems, Man, and Cybernetics - Part A: April, 2010; October, 2009;
- IEEE Transactions on Systems, Man, and Cybernetics - Part B: December, 2012; August, 2011; August, 2009;
- IEEE Transactions on Systems, Man, and Cybernetics - Part C: January, 2006;
- WWW2003 Semantic Web track: December, 2002.

Invited Talks

- Keynote talk *Deep Learning and Privacy Preserving in a Health Social Network* at the 10th International Workshop on Privacy and Anonymity in the Information Society (PAIS) at ICDM 2017, New Orleans, LA. November, 2017.
- Invited talk *Semantic Data Mining and Deep Learning in Health Datasets* at Computer Science Department, Kent State University, Kent, Ohio. October, 2017.

- Invited talk *Semantic Data Mining and Deep Learning in Health Datasets* at Department of Biomedical Informatics and Medical Education, University of Washington, Seattle, Washington. October, 2017.
- Invited talk *Semantic Data Mining and Deep Learning in Health Datasets* at the Portland Metro Chapter of the Data Administration Management Association, Portland, Oregon. May, 2017.
- Invited talk *Ontology-based Deep Learning and Applications* at Electronic Engineering Department, Tsinghua University, Beijing, China. March, 2017.
- Invited talk *Semantic Data Mining and Deep Learning in Health Datasets* at Microsoft Research Asia, Beijing, China. July, 2016.
- Keynote talk *Semantic Data Mining and Deep Learning in Health Datasets* at 4th Workshop on Data Mining for Medicine and Healthcare at SDM 2015, Vancouver, Canada. May, 2015.
- Invited talk *Use of Ontologies in Semantic Association Mining and Information Extraction* at Electronic Engineering Department, Tsinghua University, Beijing, China. August, 2014.
- Invited talk *Use of Ontologies in Semantic Association Mining from Electronic Health Records* at Faculty of Health Sciences, University of Maribor, Slovenia. September 2013.
- Colloquium talk *Use of Ontologies in Semantic Association Mining and Information Extraction* at School of Computing and Informatics, University of North Carolina at Charlotte, NC. April, 2013.
- Invited talks *Use of Ontologies in Semantic Association Mining and Information Extraction* at Microsoft Research Asia, Beijing, China, August 2013; WalmartLabs, CA, June, 2013; IBM Almaden Research Center, CA, February 2013; Sumsung Information Systems America, San Jose, CA, November 2012; Xerox Parc, Palo Alto Research Center, CA, November, 2012.
- Colloquium talk *Use of Ontologies in Semantic Association Mining and Information Extraction* at Stanford Center for Biomedical Informatics Research (BMIR), Stanford University, Stanford, CA. October, 2012.
- Invited talk *Data Mining and Formal Semantics* at Computer Science and Engineering, Arizona State University, Tempe, AZ, November, 2011. The same talk was given at South Florida University, Tampa, FL (November, 2011); Tsinghua University, Beijing, China (September, 2011); Microsoft Research Asia, Beijing, China (August, 2011).
- Invited talk *Data-driven Approaches in Biomedical Ontology Research* at the School of Computer and Information Sciences, University of South Alabama, Mobile, AL, October, 2010.
- Invited talk *Data-driven Approaches in Biomedical Ontology Research* at the Department of Computer Science, Kent State University, Kent, OH, September, 2010.

- Invited talk *Development of NeuroElectroMagnetic Ontologies (NEMO): A Framework for Mining and Modeling Brainwave Data Ontologies* at the Division of Biomedical Computer Science (BMCS), Oregon Health & Science University, Beaverton, OR, April, 2009.
- Invited talk *Development of NeuroElectroMagnetic Ontologies (NEMO): A Framework for Mining and Modeling Brainwave Ontologies* at the Brain-Computer Interfaces Group, Microsoft Research, Redmond, WA, November, 2007.
- Invited talk *Ontology Translation on the Semantic Web* at the Database Research Group, University of Washington, Seattle, WA, May, 2004.
- Invited talk *Two issues on Logic Representation and Ontology Translation* at University of Rome (ISTC-CNR), Rome, Italy, June, 2002.

Others

- Yale team member for small size group Robocup competition in Robocup2000, Melbourne, Australia, September, 2000.

Industry ACTIVITIES:

- Member, Baidu Technical Committee, 2019-2022.

University ACTIVITIES:

- Member, UO Faculty Personnel Committee, 2017-2019.
- Senator, UO Faculty Senate, 2015 - 2017.
- Member, UO Scholarship Committee, 2014-2016.
- Senator, UO InterInstitutional Faculty Senate (IFS), 2009-2012.
- Chair, Personnel Committee (PC), UO Computer and Information Science, 2016-2017.
- Chair, Computing Resource Committee (CRC), UO Computer and Information Science, 2013-2015. 2017-2018.
- Organizer, UO Computer and Information Science Colloquium, 2005-2006, 2009-2010, 2010-2011.
- Member, Personnel Committee (PC), UO Computer and Information Science, 2015-2016, 2018-2019.
- Member, Faculty Search Committee, UO Computer and Information Science, 2013-2014.
- Member, Graduate Education Committee (GEC), UO Computer and Information Science, 2004-2005, 2006-2012.