Jiawei Zhang

Curriculum Vitae

Academic Surge Building 2075
1124 Crocker Ln
Davis, CA 95618
1129 823-9343
129 jiwzhang@ucdavis.edu
http://www.ifmlab.org
Last Update: December 9, 2021

Research Interests

Machine Learning

Deep Learning; Broad Learning; Graph Neural Network; Stochastic Optimization

Data Mining and Big Data

Information Fusion; Graph Mining; Heterogeneous Networks Embedding

Applications

Online Social Networks; Fake News Detection; Recommender Systems

Robotics

TBD

Professional Experiences

2021-Present Assistant Professor.

Department of Computer Science, University of California, Davis

2017–2021 Assistant Professor.

Department of Computer Science, Florida State University

2017-Present Founder and Director.

Information Fusion and Mining Laboratory (IFM Lab)

Education

2012–2017 **Ph.D. in Computer Science**.

University of Illinois at Chicago, Chicago, IL, USA

- Thesis: Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery
- o Advisor: Philip S. Yu, Ph.D.

2008–2012 B.S. in Computer Science.

Nanjing University, Nanjing, Jiangsu, China

Other Research Experiences

2013-2017 Graduate Research Assistant, University of Illinois at Chicago, Chicago, IL.

o Advisor: Philip S. Yu, Ph.D.

2016 Research Intern, Yahoo! Research, Sunnyvale, CA.

o Mentors: Jianhui Chen, Ph.D. and Yi Chang, Ph.D.

- 2015 Research Intern, IBM T. J. Watson Research Center, Yorktown Heights, NY.
 - o Mentor: Charu Aggrawal, Ph.D.
- 2014 Research Intern, Microsoft Research, Mountain View, CA.
 - o Mentor: Yuanhua Lv, Ph.D.

Awards and Honors

- 2020Best Student Paper Runner Up AwardIEEE ICDM2018First Year Assistant Professor AwardFSU2018Best Student Paper Runner Up AwardACM SIGKDD2016Best Student Paper Runner Up AwardIEEE/ACM ASONAM
 - Grant Proposals

Funded Proposals

- 4 Funded Proposals, Total Budget \$2.92M, My Share \$1.17M
- 2021-2025 PI, III: Medium: Collaborative Research: Self-Supervised Recommender System Learning with Application Specific Adaption.
 - NSF Division of Information & Intelligent Systems
 - o Personal Share: \$600K/\$1.2M
- 2018-2022 PI, III: Medium: Collaborative Research: An Extensible Heterogeneous Network Embedding Framework with Application Specific Adaptation.
 - NSF Division of Information & Intelligent Systems
 - o Personal Share: \$550K/\$1.2M
- 2018-2019 sole-PI, CRC: Cyberspace Fake News Article and Creator Detection via a Multi-Perspective Approach.
 - FSU Council on Research and Creativity
 - o Personal Share: \$20K
- 2015-2019 Senior Personnel, III: Small: Fusion of Heterogeneous Networks for Syner-gistic Knowledge Discovery.
 - NSF Division of Information & Intelligent Systems
 - Total Budget: \$500K

Course Teaching

2021 Spring CIS 5725-0001: Advanced Database Systems.

Department of Computer Science Florida State University

2020 Fall **COP 4710-0001: Databases**.

Department of Computer Science Florida State University

2020 Spring CIS 5930-0003: Deep Learning and Applications.

Department of Computer Science

Florida State University

2019 Fall **COP 4710-0001: Databases**.

Department of Computer Science

Florida State University

2019 Spring CIS 5930-0002: Advanced Data Mining.

Department of Computer Science

Florida State University

2018 Fall COP 4710-0001: Databases.

Department of Computer Science

Florida State University

2018 Spring CIS 5930-0004: Social Network Mining.

Department of Computer Science

Florida State University

Student Mentoring

Mentored Students

2019-Present Haopeng Zhang.

Current: PhD Student@Florida State University

Research Topic: Text Mining

o Collaborated Papers: [16], [32]

2018-Present Lin Meng.

o Current: PhD Student@Florida State University

Research Topic: Graph Mining

o Collaborated Papers: [56], [55], [48], [46], [43], [20], [21]

2018–Present Yuxiang Ren.

Current: PhD Student@Florida State University

o Research Topic: Text Mining and Graph Mining

o Collaborated Papers: [55], [49], [43], [42], [33], [23], [44], [107], [27], [28], [29], [30]

2018–2021 Haeseung Jeong.

Current: Master@Florida State University

• Research Topic: Document Classification

Collaborated Papers:

2017-2017 **Conying Xia**.

o Current: PhD Candidate@University of Illinois at Chicago

o Research Topic: Network Embedding

o Collaborated Papers: [71], [15], [16]

2016-2017 **Ye Liu**.

- Current: PhD Candidate@University of Illinois at Chicago
- Research Topic: Multiple Aligned Movie Library Analysis
- o Collaborated Papers: [66]

2016–2017 **Chenwei Zhang**.

- Current: Applied Scientist@Amazon
- o Research Topic: Deep Learning Application in Data Mining
- o Collaborated Papers: [66], [72], [54], [71], [15]

2015–2016 **Junxing Zhu**.

- o Current: Assistant Professor@National University of Defense Technology
- o Research Topic: User Resolution and Alignment across Networks
- o Collaborated Papers: [69], [120], [72], [122]

2014–2016 **Qianyi Zhan**.

- o Current: Assistant Professor@Jiangnan University
- o Research Topic: Information Diffusion and Viral Marketing
- o Collaborated Papers: [81], [82], [86], [88], [99], [84], [123], [112], [118], [119]

PhD Thesis Committee

Dec. 2021 Congying Xia.

- Current: Researcher@Salesforce
- o PhD Defense Exam: Natural Language Understanding for Conversational Agents.

Nov. 2021 Yuxiang Ren.

- o Current: Researcher@Huawei
- o PhD Defense Exam: Graph Neural Network and Applications.

Oct. 2021 Zhiwei Liu.

- o Current: PhD Candidate@University of Illinois at Chicago
- PhD Prelim Exam: Deep Learning for Recommender System: Towards Structures and Sequences.

April 2021 Yuxiang Ren.

- Current: PhD Candidate@Florida State University
- PhD Prospectus Exam: Mining on Graphs: Graph Neural Network and Applications.

Feb. 2021 Congying Xia.

- Current: PhD Candidate@University of Illinois at Chicago
- PhD Prelim Exam: Natural Language Understanding for Conversational Agents.

Feb. 2021 He Huang.

- o Current: PhD Candidate@University of Illinois at Chicago
- PhD Prelim Exam: Label Scarcity in Computer Vision: From Long Tail to Zero-shot.

Feb. 2021 Daniel Bis.

- o Current: PhD Candidate@Florida State University
- PhD Area Exam: Layered Multistep Bidirectional Long Short-Term Memory Networks for Biomedical Word Sense Disambiguation.

October 2019 Soumak Mookherjee.

- Current: PhD Candidate@Florida State University
- PhD Area Exam: Generalization of Deep Neural Network.

April 2019 Lei Zheng.

- Current: PhD Candidate@University of Illinois at Chicago
- PhD Dissertation Defense Talk: Deep Learning for Recommender Systems

April 2019 Chenwei Zhang.

- Current: PhD Candidate@University of Illinois at Chicago
- PhD Dissertation Defense Talk: Structured Knowledge Discovery from the Massive Text Corpus

Feb 2019 Xinyue Liu.

- o Current: PhD Candidate@Worcester Polytechnic Institute
- o PhD Dissertation Defense Talk: On Graph Discovery and Synthesis

Feb 2019 Chenwei Zhang.

- o Current: PhD Candidate@University of Illinois at Chicago
- PhD Prelimnary Talk: Structured Knowledge Discovery from Massive Text Corpus.

October 2018 Lei Zheng.

- o Current: PhD Candidate@University of Illinois at Chicago
- o PhD Prelimnary Talk: Recommender System Build with Deep Learning.

April 2018 Xinyue Liu.

- o Current: PhD Candidate@Worcester Polytechnic Institute
- o PhD Defense Proposal Talk: Synergistic Graph Discovery and Generation

March 2018 Haixu Wang.

- Current: PhD Candidate@Florida State University
- PhD Candidacy Talk: Network Origins of Aggregate Volatility and Macroeconomic Tail Risks

Master Exam Committee

Dec 2021 Celine Shenny.

- o Current: Master Student@University of California, Davis
- Project: LDA Topic Modeling for Covid-19 News Articles

Dec 2021 Jailan Sabet.

- o Current: Master Student@University of California, Davis
- o Project: Classification of EEG Signals Utilizing Convolutional Neural Networks

March 2021 Haeseung Jeong.

- o Current: Master Student@Florida State University
- o Defense Talk: Hierarchical Attention Network for Fake News Detection

July 2018 Yu Zhang.

- Current: Master Student@Florida State University
- o Defense Talk: Big Data and Movie Recommender System

Research Publication

Academic No. citations: 3,737, h-index: 27 (By December 9, 2021)

Impact (Source: https://scholar.google.com/citations?user=7AkZSJsAAAAJ&hl=en)

Books

[1] **Jiawei Zhang** and Philip S. Yu. Broad Learning through Fusions: An Application on Social Networks. ISBN 978-3-030-12527-1. Springer. 2019.

Book Chapters

- [2] **Jiawei Zhang** and Philip S. Yu. Broad Learning based Social Community Detection. Springer.
- [3] **Jiawei Zhang**. Chapter 6: Fusion Learning on Heterogeneous Social Networks. Heterogeneous Information Network Analysis and Applications (Data Analytics), Chuan Shi and Philip S. Yu, Springer.
- [4] **Jiawei Zhang** and Philip S. Yu. Chapter: Cross-Platform Social Network Analysis. Encyclopedia of Social Network Analysis and Mining 2nd Edition, 2016.

Survey Papers

- [5] Jiawei Zhang. Social Network Fusion and Mining: A Survey. May 2018.
- [6] Jiawei Zhang. Link Prediction across Heterogeneous Social Networks: A Survey.
- [7] Philip S. Yu, Jiawei Zhang. On Mining Big Data and Social Network Analysis. July 2014.

Tutorial Articles

- [8] **Jiawei Zhang**. IFM Lab Tutorial Series # 1: Gradient Descent based Optimization Algorithms for Deep Learning Models Training. First Version: February 2019.
- [9] **Jiawei Zhang**. IFM Lab Tutorial Series # 2: Derivative-Free Global Optimization Algorithms: Bayesian Method and Lipschitzian Approaches. First Version: March 2019.
- [10] **Jiawei Zhang**. IFM Lab Tutorial Series # 3: Derivative-Free Global Optimization Algorithms: Population based Methods and Random Search Approaches. First Version: March 2019.
- [11] **Jiawei Zhang**. IFM Lab Tutorial Series # 4: Secrets of the Brain: An Introduction to the Brain Anatomical Structure and Biological Function. First Version: April 2019.

- [12] **Jiawei Zhang**. IFM Lab Tutorial Series # 5: Basic Neural Units of the Brain: Neurons, Synapses and Action Potential. First Version: May 2019.
- [13] **Jiawei Zhang**. IFM Lab Tutorial Series # 6: Cognitive Functions of the Brain: Perception, Attention and Memory. First Version: May 2019.
- [14] **Jiawei Zhang**. IFM Lab Tutorial Series # 7: Graph Neural Networks for Small Graph and Giant Network Representation Learning: An Overview. First Version: July 2019.

Preprints (* My PhD Students)

- [15] Congying Xia, Chenwei Zhang, Hoang Nguyen, Jiawei Zhang and Philip Yu. CG-BERT: Conditional Text Generation with BERT for Generalized Few-shot Intent Detection. ArXiv abs/2004.01881. 2020.
- [16] Jiawei Zhang, Haopeng Zhang*, Congying Xia and Li Sun. GRAPH-BERT: Only Attention is Needed for Learning Graph Representations. ArXiv abs/2001.05140. 2020.
- [17] **Jiawei Zhang**. Segmented GRAPH-BERT for Graph Instance Modeling. ArXiv abs/2002.03283. 2020.
- [18] **Jiawei Zhang**. Graph Neural Distance Metric Learning with GRAPH-BERT. ArXiv abs/2002.03427. 2020.
- [19] **Jiawei Zhang**. G5: A Universal GRAPH-BERT for Graph-to-Graph Transfer and Apocalypse Learning. ArXiv abs/2006.06183. 2020.
- [20] Yixin Chen, Lin Meng* and Jiawei Zhang. Graph Neural Lasso for Dynamic Network Regression. ArXiv abs/1907.11114. 2019.
- [21] **Jiawei Zhang** and Lin Meng*. GResNet: Graph Residual Network for Reviving Deep GNNs from Suspended Animation. ArXiv abs/1909.05729. 2019.

Conference and Workshop Papers (* My PhD Students)

- [22] Li Sun, Zhongbao Zhang, Junda Ye, Hao Peng, Jiawei Zhang, Sen Su and Philip S. Yu. A Self-supervised Mixed-curvature Graph Neural Network. In: Proceedings of the 36th AAAI Conference on Artificial Intelligence (AAAI '22), Virtual Conference, February 22 March 1, 2022.
- [23] Yuxiang Ren*, Hao Zhu, Jiawei Zhang, Peng Dai and Liefeng Bo. EnsemFDet: An Ensemble Approach to Fraud Detection based on Bipartite Graph. In: Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE '21), Chania Crete, Greece. April 19-22, 2021.
- [24] Li Sun, Zhongbao Zhang, Jiawei Zhang, Feiyang Wang, Hao Peng, Sen Su and Philip S. Yu. Hyperbolic Variational Graph Neural Network for Modeling Dynamic Graphs. In: Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI '21), Virtual Conference, February 2-9, 2021.

- [25] Ziwei Fan, Zhiwei Liu, Jiawei Zhang, Yun Xiong, Lei Zheng and Philip Yu. Continuous—Time Sequential Recommendation with Temporal Graph Collaborative Transformer. In: Proceedings of the 30th ACM International Conference on Information and Knowledge Management. (CIKM '21), Online Conference Hosted in Gold Coast, Queensland, Australia. November 1-5, 2021.
- [26] Qingqin Wang, Yun Xiong, Yao Zhang, Jiawei Zhang and Yangyong Zhu. AutoCite: Multi-Modal Representation Fusion for Contextual Citation Generation. In: Proceedings of the 14th ACM International Conference on Web Search and Data Mining (WSDM '21), Jerusalem, Israel. March 8-12, 2021.
- [27] Yuxiang Ren*, Jiyang Bai and **Jiawei Zhang**, Peng Dai and Liefeng Bo. Label Contrastive Coding based Graph Neural Network for Graph Classification. In: Proceedings of the 26th International Conference on Database Systems for Advanced Applications(*DASFAA '21*), Hybrid Conference. April 11-14, 2021.
- [28] Jiyang Bai, Yuxiang Ren* and Jiawei Zhang. Ripple Walk Training: A Subgraph-based training framework for Large and Deep Graph Neural Networks. In: Proceedings of the International Joint Conference on Neural Networks (IJCNN '21), Virtual Event, July 18-22, 2021.
- [29] Jiyang Bai, Yuxiang Ren* and Jiawei Zhang. BGADAM: Boosting based Genetic-Evolutionary ADAM for Deep Convolutional Neural Network Optimization. In: Proceedings of the International Joint Conference on Neural Networks (IJCNN '21), Virtual Event, July 18-22, 2021.
- [30] Yuxiang Ren* and **Jiawei Zhang**. Fake News Detection on News-Oriented Heterogeneous Information Networks through Hierarchical Graph Attention. In: Proceedings of the International Joint Conference on Neural Networks (*IJCNN '21*), Virtual Event, July 18-22, 2021.
- [31] Xing Jia, Yun Xiong, Jiawei Zhang, Blackley Suzanne, Yangyong Zhu and Chunlei Tang. Radiology Report Generation for Rare Diseases via Few-shot Transformer. In: Proceedings of the 2021 International Conference on Bioinformatics and Biomedicine (*BIBM '20*), Virtual Event, December 9-12, 2021.
- [32] Haopeng Zhang* and **Jiawei Zhang**. Text Graph Transformer for Document Classification. In: Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (*EMNLP '20*). November 16-20, 2020.
- [33] Yuxiang Ren*, Bo Wang, Jiawei Zhang and Yi Chang. Adversarial Active Learning based Heterogeneous Graph Neural Network for Fake News Detection. In: Proceedings of the 20th IEEE International Conference on Data Mining (ICDM '20), Sorrento, Italy, November 17-20, 2020.
- [34] Li Sun, Zhongbao Zhang, Jiawei Zhang, Feiyang Wang, Yang Du, Sen Su and Philip S. Yu. PERFECT: A Hyperbolic Embedding for Joint Social Network Alignment. In: Proceedings of the 20th IEEE International Conference on Data Mining (ICDM '20), Sorrento, Italy, November 17-20, 2020.

- [35] Yizhu Jiao, Yun Xiong, **Jiawei Zhang**, Yao Zhang, Tianqi Zhang and Yangyong Zhu. Sub-graph Contrast for Scalable Self-Supervised Graph Representation Learning. In: Proceedings of the 20th IEEE International Conference on Data Mining (*ICDM '20*), Sorrento, Italy, November 17-20, 2020.
- [36] Tianqi Zhang, Yun Xiong, **Jiawei Zhang**, Yao Zhang, Yizhu Jiao and Yangyong Zhu. CommDGI: Community Detection Oriented Deep Graph Infomax. In: Proceedings of the 29th ACM International Conference on Information and Knowledge Management (*CIKM '20*), Online, October 19-23, 2020.
- [37] **Jiawei Zhang**. Get Rid of Suspended Animation Problem: Deep Diffusive Neural Network on Graph Semi-Supervised Classification. Workshop on Graph Representation Learning and Beyond (GRL+). In: 37th International Conference on Machine Learning (*ICML '20*), Online, July 12-18, 2020.
- [38] Zhiwei Yang, Hechang Chen, **Jiawei Zhang**, Jing Ma and Yi Chang. Attention-based Multi-level Feature Fusion for Named Entity Recognition. In: Proceedings of the 29th International Joint Conference on Artificial Intelligence (*IJCAI '20*), Yokohama, Japan, July 11-17, 2020.
- [39] Fuxin Ren, Zhongbao Zhang, Jiawei Zhang, Sen Su, Li Sun, Guozhen Zhu and Congying Guo. BANANA: when Behavior ANAlysis meets social Network Alignment. In: Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI '20), Yokohama, Japan, July 11-17, 2020.
- [40] Jiawei Zhang, Bowen Dong and Philip S. Yu. FAKEDETECTOR: Effective Fake News Detection with Deep Diffusive Neural Network. In: Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20), Dallas, Texas, USA, April 20-24, 2020.
- [41] Yu Li, **Jiawei Zhang** and Yi Chang. Learning Signed Network Embedding via Graph Attention. In: Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (*AAAI '20*), New York City, New York, USA, February 7-12, 2020.
- [42] Yuxiang Ren*, Bo Liu, Chao Huang, Peng Dai, Liefeng Bo and **Jiawei Zhang**. Heterogeneous Deep Graph Infomax. Workshop of Deep Learning on Graphs: Methodologies and Applications co-located with the Thirty-Fourth AAAI Conference on Artificial Intelligence (*AAAI '20*), New York City, New York, USA, February 7-12, 2020.
- [43] Yuxiang Ren*, Lin Meng* and Jiawei Zhang. Scalable Heterogeneous Social Network Alignment through Synergistic Graph Partition. In: Proceedings of the 31st ACM Conference on Hypertext and Social Media (HT '20), July 13-15, 2020.
- [44] Jiyang Bai, Yuxiang Ren* and Jiawei Zhang. DEAM: Accumulated Momentum with Discriminative Weight for Stochastic Optimization. In: Proceedings of the 2020 IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM '20), December 7-10, 2020.

- [45] Xing Jia, Yun Xiong, Jiawei Zhang, Yao Zhang and Yangyong Zhu. Few-shot Radiology Report Generation for Rare Diseases. In: Proceedings of the 2020 International Conference on Bioinformatics and Biomedicine (BIBM '20), Seout, South Korea, December 16-19, 2020.
- [46] Lin Meng, Ning Yan, Masood Mortazavi and **Jiawei Zhang**. Discovering Localized Information for Heterogeneous Graph Node Representation Learning. In: Proceedings of the 6th IEEE International Conference on Collaboration and Internet Computing. (CIC '20), Virtual Conference, December 1-3, 2020.
- [47] Congying Xia, Chenwei Zhang, **Jiawei Zhang**, Tingting Liang, Hao Peng and Philip S. Yu. Low-shot Learning in Natural Language Processing. In: Proceedings of the 2nd IEEE International Conference on Cognitive Machine Intelligence. (*CogMI '20*), Virtual Conference, December 1-3, 2020.
- [48] Lin Meng* and Jiawei Zhang. IsoNN: Isomorphic Neural Network for Graph Representation Learning and Classification. Graph Representation Learning Workshop of the 33rd Conference on Neural Information Processing Systems (NIPS '19), Vancouver, Canada, December 8-14, 2019.
- [49] Yuxiang Ren*, Charu C. Aggarwal and Jiawei Zhang. Meta Diagram based Active Social Networks Alignment. In: Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19), Macau SAR, China, April 8-12, 2019.
- [50] Yu Li, Ying Wang, Tingting Zhang, Jiawei Zhang and Yi Chang. Learning Network Embedding with Community Structural Information. In: Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI '19), Macau SAR, China, August 10-16, 2019.
- [51] Lei Zheng, Ziwei Fan, Chun-Ta Lu, Jiawei Zhang and Philip S. Yu. Gated Spectral Units: Modeling Co-evolving Patterns for Sequential Recommendation. In: Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '19), Paris, France, July 21-25, 2019.
- [52] Lei Zheng, Chaozhuo Li, Chun-Ta Lu, Jiawei Zhang and Philip S. Yu. Deep Distribution Network: Addressing the Data Sparsity Issue for Top-N Recommendation. In: Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '19), Paris, France, July 21-25, 2019.
- [53] Yizhu Jiao, Yun Xiong, Jiawei Zhang and Yangyong Zhu. Collective Link Prediction Oriented Network Embedding with Hierarchical Graph Attention. In: Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM '19), Beijing, China, November 3-7, 2019.
- [54] Bowen Dong, **Jiawei Zhang**, Chenwei Zhang, Yang Yang and Philip S. Yu. Missing Entity Synergistic Completion across Multiple Isomeric Online Knowledge Libraries.

- In: Proceedings of the 2019 International Joint Conference on Neural Networks (*IJCNN '19*), Budapest, Hungary, July 14-19, 2019.
- [55] Lin Meng*, Yuxiang Ren*, Jiawei Zhang, Fanghua Ye and Philip S. Yu. Deep Heterogeneous Social Network Alignment. In: Proceedings of the 5th IEEE International Conference on Collaboration and Internet Computing (CIC '19), Los Angeles, CA, USA, December 12-14, 2019.
- [56] Lin Meng*, Jiyang Bai, **Jiawei Zhang**. LATTE: Application Oriented Network Embedding. In: Proceedings of the 36th IEEE International Conference on Data Engineering (*BigData '19*), Los Angeles, CA, USA, December 9-12, 2019.
- [57] **Jiawei Zhang**, Bowen Dong and Philip S. Yu. Effective Fake News Detection with Deep Diffusive Neural Network. In: Proceedings of the 36th IEEE International Conference on Data Engineering (*BigData '19*), Los Angeles, CA, USA, December 9-12, 2019.
- [58] Zhiwei Liu, Lei Zheng, Jiawei Zhang, Jiayu Han and Philip S. Yu. JSCN: Joint Spectral Convolutional Network for Cross Domain Recommendation. In: Proceedings of the 36th IEEE International Conference on Data Engineering (*BigData* '19), Los Angeles, CA, USA, December 9-12, 2019.
- [59] Pengyang Wang, Yanjie Fu, Jiawei Zhang, Pengfei Wang, Yu Zheng and Charu Aggarwal. You Are How You Drive: Peer and Temporal-Aware Representation Learning for Driving Behavior Analysis. In: Proceedings of the 24th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '18), London, UK, August 19-23, 2018.
- [60] Limeng Cui, Zhensong Chen, Jiawei Zhang, Philip S. Yu, Yong Shi and Lifang He. Multi-view Collective Tensor Decomposition for Cross-modal Hashing. In: Proceedings of the ACM International Conference on Multimedia Retrieval (ICMR '18), Yokohama, Japan, June 11-14, 2018.
- [61] Lifang He, Chun-Ta Lu, Yong Chen, **Jiawei Zhang**, Linlin Shen, Philip S. Yu and Fei Wang. A Self-Organizing Tensor Architecture for Multi-View Clustering. In: Proceedings of the 2018 IEEE International Conference on Data Mining (*ICDM '18*), Singapore, November 17-20, 2018.
- [62] Lei Zheng, Chun-Ta Lu, Fei Jiang, Jiawei Zhang and Philip S. Yu. Spectral Collaborative Filtering. In: Proceedings of the 12th ACM Conference on Recommender Systems (RecSys '18), Vancouver, Canada, October 2-7, 2018.
- [63] Limeng Cui, Zhensong Chen, Jiawei Zhang, Lifang He, Yong Shi and Philip S. Yu. Data Fusion for Cross-modal Retrieval Using Tensor Modeling. In: Proceedings of the 2018 IEEE International Conference on Image Processing (ICIP '18), Athens, Greece, October 7-10, 2018.
- [64] Kunpeng Liu, Pengyang Wang, Jiawei Zhang, Guannan Liu, Yanjie Fu and Sajal K. Das. Incorporating Interaction Coupling among Multi-View Spatiotemporal Contexts for Mobike Destination Prediction. In: Proceedings of the SIAM

- International Conference on Data Mining (SDM '18), San Diego, California, USA, May 3-5, 2018.
- [65] Pengyang Wang, Jiawei Zhang, Guannan Liu, Yanjie Fu and Charu C. Aggarwal. Ensemble-Spotting: Prioritizing Vibrant Communities via POI Embedding with Multi-view Spatial Graphs. In: Proceedings of the SIAM International Conference on Data Mining (SDM '18), San Diego, California, USA, May 3-5, 2018.
- [66] Ye Liu, **Jiawei Zhang**, Chenwei Zhang and Philip S. Yu. Data-driven Blockbuster Planning on Online Movie Knowledge Library. In: Proceedings of the 2018 IEEE International Conference on Big Data (*BigData '18*).
- [67] Jiawei Zhang, Jianhui Chen, Shi Zhi, Yi Chang, Philip S. Yu and Jiawei Han. Link Prediction across Aligned Networks with Sparse Low Rank Matrix Estimation. In: Proceedings of the 2017 IEEE International Conference on Data Engineering (ICDE '17), San Diego, California, USA, April 19-22, 2017.
- [68] Jiawei Zhang, Philip S. Yu, Yuanhua Lv. Enterprise Social Community Detection via Hierarchical Information Fusion. In: Proceedings of the 2017 IEEE International Conference on Data Engineering (ICDE '17), San Diego, California, USA, April 19-22, 2017.
- [69] Jiawei Zhang, Jianhui Chen, Junxing Zhu, Yi Chang, and Philip S. Yu. Link Prediction with Cardinality Constraints. In: Proceedings of the 10th ACM International WSDM Conference (WSDM '17), Cambridge, UK, February 6-10, 2017.
- [70] Jiawei Zhang, Philip S. Yu, Yuanhua Lv. Enterprise Employee Training via Project Team Formation. In: Proceedings of the 10th ACM International WSDM Conference (WSDM '17), Cambridge, UK, February 6-10, 2017.
- [71] Jiawei Zhang, Congying Xia, Chenwei Zhang, Limeng Cui, Yanjie Fu and Philip S Yu. BL-MNE: Emerging Heterogeneous Social Network Embedding through Broad Learning with Aligned Autoencoder. In: Proceedings of the IEEE International Conference on Data Mining (ICDM '17), New Orleans, Louisiana, USA, November 18-21, 2017.
- [72] Zhu Junxing, Jiawei Zhang, Lifang He, Quanyuan Wu, Bin Zhou, Chenwei Zhang and Philip S. Yu. Broad Learning based Multi-Source Collaborative Recommendation. In: Proceedings of the 2017 International Conference on Information and Knowledge Management (CIKM '17), Singapore, November 6-10, 2017.
- [73] **Jiawei Zhang**, Limeng Cui, Philip S. Yu and Yuanhua Lv. BL-ECD: Broad Learning based Enterprise Community Detection via Hierarchical Structure Fusion. In: Proceedings of the 2017 International Conference on Information and Knowledge Management (*CIKM '17*), Singapore, November 6-10, 2017.
- [74] **Jiawei Zhang**, Charu Aggarwal and Philip S. Yu. Rumor Initiator Detection in Infected Signed Network. In: Proceedings of the 37th IEEE International

- Conference on Distributed Computing Systems (*ICDCS '17*), Atlanta, GA, USA, June 5-8, 2017.
- [75] Limeng Cui, Jiawei Zhang, Zhensong Chen, Yong Shi, and Philip S. Yu. Inverse Extreme Learning Machine for Learning with Label Proportions. In: Proceedings of the 2017 IEEE International Conference on Big Data (*IEEE BigData 2017*), Boston, MA, USA, December 11-14, 2017.
- [76] Lichao Sun, Xiaokai Wei, Jiawei Zhang, Lifang He, Philip S. Yu, and Witawas Srisa-an. PUDroid: Positive and Unlabeled Learning to Detect Zero-day Android Malware. In: Proceedings of the 2017 IEEE International Conference on Big Data (IEEE BigData 2017), Boston, MA, USA, December 11-14, 2017.
- [77] Jiawei Zhang, Philip S. Yu, Charu C. Aggarwal and Limeng Cui. Social Attitude Expression Prediction in Signed Networks. In: Proceedings of the 6th IEEE International Congress on Big Data (*IEEE BigData Congress '17*), Honolulu, Hawaii, USA, June 25-30, 2017.
- [78] **Jiawei Zhang**, and Philip S. Yu. PCT: Partial Co-Alignment of Social Networks. In: Proceedings of the 25th International World Wide Web Conference (*WWW '16*), Montreal, Canada, April 11-15, 2016.
- [79] Qingbo Hu, Sihong Xie, Jiawei Zhang, Qiang Zhu and Philip S. Yu. HeteroSales: Utilizing Heterogeneous Social Networks to Identify the Next Enterprise Customer. In: Proceedings of the 25th International World Wide Web Conference (WWW '16), Montreal, Canada, April 11-15, 2016.
- [80] Jiawei Zhang, Xiao Pan, Moyin Li and Philip S. Yu. Bicycle-Sharing System Expansion: Station Re-Deployment through Crowd Planning. In: Proceedings of the 24th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL '16), San Francisco Bay Area, California, USA, October 31-November 3, 2016.
- [81] Jiawei Zhang, Philip S. Yu, Yuanhua Lv and Qianyi Zhan. Information Diffusion at Workplace. In: Proceedings of the 25th ACM International Conference on Information and Knowledge Management (CIKM '16), Indianapolis, Indiana, USA, October 24-28, 2016.
- [82] Jiawei Zhang, Qianyi Zhan, Lifang He, Charu C. Aggarwal and Philip S. Yu. Trust Hole Identification in Signed Networks. In: Proceedings of the 2016 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (ECML-PKDD '16), Riva del Garda, Italy, September 19-23, 2016.
- [83] Guixiang Ma, Lifang He, Bokai Cao, Jiawei Zhang, Philip S. Yu, and Ann B. Ragin. Multi-Graph Clustering based on Interior-Node Topology with Applications to Brain Networks. In: Proceedings of the 2016 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (ECML-PKDD '16), Riva del Garda, Italy, September 19-23, 2016.
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- IEEE International Conference on Bioinformatics and Biomedicine (BIBM '16), Shenzhen, China, December 15-18, 2016.
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Invited Talks

- Feb. 2021 Deep Learning on Graphs: Graph Neural Network Research and Applications, University of California, Davis
- Feb. 2019 Broad Learning through Fusions, University of Pittsburgh
- Jan. 2019 Broad Learning through Fusions, Worcester Polytechnic Institute
- Dec. 2018 Broad Learning through Fusions, Fudan University
- Dec. 2018 Broad Learning through Fusions, Beijing University of Posts and Telecommunications
- Nov. 2017 An Introduce to Network Embedding Methods, Florida State University
- Oct. 2017 Social Network Mining: An Introduction, Florida State University
- April 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, Florida State University
- March 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, University of Louisiana at Lafayette

- March 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, Indiana University Purdue University Indianapolis
- Feb. 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, Indiana University Bloomington
- Feb. 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, Rensselaer Polytechnic Institute
- Feb. 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, University Alabama at Birmingham
- Feb. 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, New Jersey Institute of Technology
- Feb. 2017 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery, Temple University
- Aug. 2016 Link Prediction with Cardinality Constraint, Yahoo! Research
- May 2016 Fusion of Heterogeneous Social Networks for Synergistic Knowledge Discovery
- Aug. 2014 Enterprise Social Network Analysis and Social Link Recommendation, Microsoft Research

Professional Services

Funding Review Panelist

Swiss National Science Foundation Panel

- August 2019.
- US National Science Foundation, IIS Medium Panel

April 2019.

Transaction Information Director and Specialist

 ACM Transactions on Knowledge Discovery from Data (TKDD) August 2014 to September 2017.

Conference Session Chair

 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, Session 7C: Adversarial/Trust 2, ASONAM 2016

Senior Program Committee

• AAAI Conference on Artificial Intelligence (AAAI): 2021, 2022

Program Committee

- SIGKDD Conference of Knowledge Discovery and Data Mining (KDD): 2018, 2019, 2020, 2021, 2022
- SIGIR Conference on Research and Development in Information Retrieval (SIGIR): 2020, 2021, 2022
- o International World Wide Web Conference (WWW): 2017, 2018, 2019, 2020
- AAAI Conference on Artificial Intelligence (AAAI): 2019, 2020
- o International Joint Conference on Artificial Intelligence (IJCAI): 2018, 2019

- o International Conference on Data Mining (ICDM): 2017, 2018, 2019, 2020, 2021
- International Conference on Information and Knowledge Management (CIKM): 2015, 2016, 2017, 2018, 2019, 2021
- o International Conference on Web Search and Data Mining (WSDM): 2021
- o SIAM Data Mining Conference (SDM): 2018, 2019, 2020, 2021, 2022
- o IEEE International Conference on Big Data (BigData): 2021

Journal Reviewer

- IEEE Transactions on Knowledge and Data Engineering TKDE 2014, 2017, 2019
- o ACM Transactions on Knowledge Discovery from Data TKDD 2013, 2015, 2016

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Available upon request.