

# Sheng Li

Quantitative Foundation Associate Professor  
School of Data Science, University of Virginia  
438 SDS Building, Charlottesville, VA 22903

Phone: (617) 676-7028  
E-mail: shengli@virginia.edu  
<http://www.sheng-li.org/>

## RESEARCH INTERESTS

- **Trustworthy Artificial Intelligence:** Robustness, Fairness, Safety, Causality, Explainability, and Transferability of AI systems.
- **Generative Artificial Intelligence:** Reasoning, Alignment, and Safety of Large Language Models (LLMs) and Multimodal LLMs.
- **Machine Learning for Causal Inference:** Complex Treatments, Causal Inference on Graphs, and Counterfactual Inference.
- **AI for Health, Science, and Education:** Trustworthy AI for Educational Assessment, Public Health, Biomedical Science, and Environmental Science.

## EDUCATION

**Northeastern University** Boston, MA, USA  
Ph.D. in Computer Engineering 09/2012 - 05/2017  
*Thesis:* "Robust Data Representations for Visual Learning"  
*Advisor:* Professor Yun Raymond Fu

**Nanjing University of Posts and Telecommunications (NUPT)** Nanjing, China  
M.S. in Information Security 09/2010 - 07/2012  
*Thesis:* "Divide and Conquer based Discrimination Feature Extraction and Its Application"

**Nanjing University of Posts and Telecommunications (NUPT)** Nanjing, China  
B.S. in Computer Science 09/2006 - 07/2010  
*Thesis:* "Kernel DCT Discriminant Analysis for Face Recognition"

## PROFESSIONAL EXPERIENCE

- **Quantitative Foundation Associate Professor (with Tenure)** 08/2023 - Present  
School of Data Science  
University of Virginia (UVA), Charlottesville, VA
- **Senior Principal Applied Scientist** 01/2026 - Present  
Oracle AI
- **Associate Professor (by courtesy)** 01/2024 - Present  
Department of Computer Science, School of Engineering and Applied Science  
University of Virginia (UVA), Charlottesville, VA
- **Assistant Professor** 07/2022 - 08/2023  
School of Data Science  
University of Virginia (UVA), Charlottesville, VA
- **Adjunct Assistant Professor** 07/2022 - Present  
School of Computing  
University of Georgia (UGA), Athens, GA
- **Assistant Professor** 08/2018 - 07/2022  
School of Computing  
University of Georgia (UGA), Athens, GA
- **Faculty Fellow** 08/2018 - 07/2022  
Institute for Artificial Intelligence  
University of Georgia (UGA), Athens, GA
- **Courtesy Faculty** 03/2021 - 07/2022  
Institute of Bioinformatics  
University of Georgia (UGA), Athens, GA

- **Research Scientist** 06/2017 - 07/2018  
BigData Experience Lab  
Adobe Research, San Jose, CA
- **Research Assistant** 08/2012 - 05/2017  
Department of Electrical and Computer Engineering  
Northeastern University (NEU), Boston, MA  
*Advisor: Prof. Yun Raymond Fu*
- **Data Scientist Intern** 05/2015 - 08/2015  
Adobe Research, San Jose, CA  
*Mentors: Dr. Nikos Vlassis, Dr. Jaya Kawale*
- **Data Scientist Intern** 05/2014 - 08/2014  
Adobe Research, San Jose, CA  
*Mentor: Dr. Jaya Kawale*

## HONORS & AWARDS

- Senior Member, AAAI 2026
- Senior Member, ACM 2026
- Distinguished Contributor, IEEE Computer Society 2025
- Capital One Faculty Fellowship 2025  
*Capital One*
- Research Communications Fellow 2024  
*University of Virginia*
- Outstanding Researcher 2023  
*University of Virginia*
- Georgia CTSA President's Award for Team Science 2023  
*Georgia Clinical and Translational Science Alliance*
- DARPA AI Forward 2023  
*Among 100 participants selected from 700+ applicants*
- Adobe Data Science Research Award 2022
- Fred C. Davidson Early Career Scholar Award 2022  
*University of Georgia*
- Best Associate Editor Award 2022  
*IEEE Transactions on Circuits System for Video Technology*
- Faculty Teaching Excellence Award 2021  
*Department of Computer Science, University of Georgia*
- **Best-Ranked Papers** of ICDM 2021  
*IEEE International Conference on Data Mining (ICDM)*
- **Top Papers** of ICME 2021  
*IEEE International Conference on Multimedia Expo (ICME)*
- Aharon Katzir Young Investigator Award 2020  
*International Neural Network Society (INNS)*
- M. G. Michael Award 2020  
*University of Georgia*
- Faculty Research Excellence Award 2020  
*Department of Computer Science, University of Georgia*
- Adobe Data Science Research Award 2019
- Senior Member, IEEE 2019
- **Best Paper Award** (1 out of 389 submissions) 2014  
*SIAM International Conf. Data Mining (SDM)*

- **Best Paper Award Candidate** (4 out of 716 submissions) 2014  
*IEEE International Conf. Multimedia Expo (ICME)*
- **Best Student Paper Honorable Mention Award** 2013  
*IEEE International Conf. Automatic Face and Gesture Recognition (FG)*
- Baidu Research Fellowship 2016
- Chinese Government Award for Outstanding Self-Financed Students Abroad 2015  
Chinese Government
- Outstanding Graduate Student Award 2015  
Highest honor for graduate students, *Northeastern University*
- The inaugural Adobe Research Fellowship Finalist 2015
- The 8th National Post-Graduate Mathematical Contest in Modeling (*Second Prize*) 2011  
Ministry of Education, China
- The 7th National Post-Graduate Mathematical Contest in Modeling (*Second Prize*) 2010  
Ministry of Education, China
- Outstanding Graduate Student, *NUPT* 2011
- Huawei Scholarship, *NUPT* 2011
- Excellent Bachelor's Thesis Award in Jiangsu Province *The Second Prize* 2010
- Research and Innovation Award, *NUPT* 2009
- The Jiangsu Province Government Scholarship, *Jiangsu Province* 2006
- Conference Travel Awards
  - ★ SDM Travel Award 2022
  - ★ SIGIR Student Travel Award 2016
  - ★ KDD Student Travel Award 2016
  - ★ CVPR Student Travel Award 2016
  - ★ IJCAI Student Travel Award 2016
  - ★ CIKM Student Travel Award 2015
  - ★ ICDM Student Travel Award 2014
  - ★ SDM Student Travel Award 2014

## CONFERENCE TUTORIALS

- Yaochen Zhu, Yinhan He, Jing Ma, Mengxuan Hu, **Sheng Li**, and Jundong Li. "Causal Inference with Latent Variables: Recent Advances and Future Prospectives." *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2024.
- Ronghang Zhu, Xiang Yu, and **Sheng Li**, "Recent Advances in Visual Domain Adaptation and Generalization", *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.  
<https://vdadg.github.io/>
- Zhixuan Chu, Jing Ma, Jundong Li, and **Sheng Li**, "Machine Learning for Causal Inference", *The Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI)*, 2023.  
<https://aaai23causalinference.github.io/>
- **Sheng Li**, Liuyi Yao, Yaliang Li, Zhixuan Chu, Jing Gao and Aidong Zhang, "Machine Learning Meets Causal Inference", *The 26th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, 2020.
- **Sheng Li**, Liuyi Yao, Yaliang Li, Jing Gao and Aidong Zhang, "Representation Learning for Causal Inference", *The Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI)*, 2020.
- **Sheng Li** and Yun Fu, "Low-Rank and Sparse Modeling for Data Analytics", *International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.

- **Sheng Li**, Yun Fu, Zhouchen Lin, Rene Vidal, Ehsan Elhamifar, and Jiashi Feng, “Low-Rank and Sparse Modeling for Visual Analytics”, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.

**PUBLICATIONS**    *Citations: 11,000+; H-index: 56, i10-index: 163* (Google Scholar, April 2026)

**ORCID:** 0000-0003-1205-8632

- Books

[B2] **Sheng Li** and Zhixuan Chu. *Machine Learning for Causal Inference*, Springer, 2023.

[B1] **Sheng Li** and Yun Fu. *Robust Representations for Data Analytics*, Springer, 2017.

Views & Downloads: 10,000+

DOI: <https://doi.org/10.1007/978-3-319-60176-2>

- **Conference Papers**

[C1] Hanzhang Yuan, Mengxuan Hu, Wenhao Zhang, Tianlong Wang, Zhongliang Zhou, Jiasen Lu, and **Sheng Li**. “Reducing Token Redundancy in LVLMS: A Systematic Review of Token Pruning Methods.” *The 64th Annual Meeting of the Association for Computational Linguistics (ACL)*, 2026.

[C2] Guangya Wan, Mingyang Ling, Xiaoqi Ren, Rujun Han, **Sheng Li**, and Zizhao Zhang. “COMPASS: Enhancing Agent Long-Horizon Reasoning with Evolving Context.” *The 64th Annual Meeting of the Association for Computational Linguistics (ACL)*, 2026.

[C3] Mengxuan Hu, Vivek Datla, Anoop Kumar, Zihan Guan, **Sheng Li**, Alf Samuel, and Daben Liu. “Alignment-Weighted DPO: A Principled Reasoning Approach to Improve Alignment.” *The Fourteenth International Conference on Learning Representations (ICLR)*, 2026.

[C4] Hanzhang Yuan and **Sheng Li**. “Doubly Robust Causal Estimation under Multi-View Network Interference (Student Abstract).” *The 40th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2026.

[C5] Mengxuan Hu, Zihan Guan, John Kang, **Sheng Li**, and Zhongliang Zhou. “Enhanced Diagnostic Performance via Large-Resolution Inference Optimization for Pathology Foundation Models.” *IEEE 23rd International Symposium on Biomedical Imaging (ISBI)*, 2026.

[C6] Daiqing Qi, Dongliang Guo, Hanzhang Yuan, Handong Zhao, Mengxuan Hu, Lehan Yang, and **Sheng Li**. “Improve Temporal Reasoning in Multimodal Large Language Models via Video Contrastive Decoding.” *The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2025.

[C7] Dongliang Guo\*, Mengxuan Hu\*, Zihan Guan, Thomas Hartvigsen, and **Sheng Li**. “BalanceEdit: Dynamically Balancing the Generality-Locality Trade-off in Multi-modal Model Editing.” *The Forty-Second International Conference on Machine Learning (ICML)*, 2025. (\* indicates equal contribution)

[C8] Zihan Guan\*, Mengxuan Hu\*, Ronghang Zhu, **Sheng Li**, and Anil Vullikanti. “Benign Samples Matter! Fine-tuning On Outlier Benign Samples Severely Breaks Safety.” *The Forty-Second International Conference on Machine Learning (ICML)*, 2025. (Spotlight; \* indicates equal contribution)

[C9] Guangya Wan, Yuqi Wu, Hao Wang, Shengming Zhao, Jie Chen, and **Sheng Li**. “Derailer-Rerailer: Adaptive Verification for Efficient and Reliable Language Model Reasoning.” *Findings of Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025.

[C10] Guangya Wan, Yunsheng Lu, Yuqi Wu, Mengxuan Hu, and **Sheng Li**. “Large Language Models in Causal Discovery: Current Landscape and Future Directions.” *The 29th International Joint Conference on Artificial Intelligence (IJCAI)*, 2025. (Survey Track)

- [C11] Daiqing Qi, Handong Zhao, Jing Shi, Simon Jenni, Yifei Fan, Franck Deroncourt, Scott Cohen, and **Sheng Li**. “The Photographer’s Eye: Teaching Multimodal Large Language Models to See, Think and Critique Like Photographers.” *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)*, 2025.
- [C12] Ronghang Zhu, Mengxuan Hu, Weiming Zhuang, Lingjuan Lyu, Xiang Yu, and **Sheng Li**. “Revisiting Source-Free Domain Adaptation: Insights into Representativeness, Generalization, and Diversity.” *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)*, 2025.
- [C13] Lehan Yang, Lu Qi, Xiangtai Li, **Sheng Li**, Varun Jampani, and Ming-Hsuan Yang. “Unified Dense Prediction of Video Diffusion.” *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)*, 2025.
- [C14] Guangya Wan, Yuqi Wu, Jie Chen, and **Sheng Li**. “RASC: Reasoning-Aware Self-Consistency for Efficient and Faithful LLM Reasoning.” *The Annual Conference of the Nations of the Americas Chapter of the ACL (NAACL)*, 2025.
- [C15] Mengxuan Hu\*, Zihan Guan\*, Yi Zeng, Junfeng Guo, Zhongliang Zhou, Jielu Zhang, Ruoxi Jia, Anil Kumar Vullikanti, and **Sheng Li**. “Mind Control through Causal Inference: Predicting Clean Images from Poisoned Data.” *International Conference on Learning Representations (ICLR)*, 2025. (\* indicates equal contribution)
- [C16] **Sheng Li**. “Trustworthy AI Meets Educational Assessment: Challenges and Opportunities.” *The 39th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2025. (Senior Member Track)
- [C17] Zihan Guan\*, Mengxuan Hu\*, **Sheng Li**, and Anil Kumar Vullikanti. “UFID: A Unified Framework for Black-box Input-level Backdoor Detection on Diffusion Models.” *The 39th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2025. (AI Alignment Track; \* indicates equal contribution)
- [C18] Dongliang Guo, Mengxuan Hu, Zihan Guan, Junfeng Guo, Thomas Hartvigsen, and **Sheng Li**. “Backdoor in Seconds: Unlocking Vulnerabilities in Large Pre-trained Models via Model Editing.” *The 34th ACM International Conference on Information and Knowledge Management (ACM CIKM)*, 2025.
- [C19] Mengxuan Hu\*, Hongyi Wu\*, Zihan Guan, Ronghang Zhu, Dongliang Guo, Daiqing Qi, and **Sheng Li**. “No free lunch: Retrieval-augmented generation undermines fairness in LLMs, even for vigilant users.” *Findings of The Conference on Empirical Methods in Natural Language Processing (EMNLP Findings)*, 2025 (\* indicates equal contribution)
- [C20] Dongliang Guo, Handong Zhao, Ryan Rossi, Sungchul Kim, Nedim Lipka, Tong Yu, and **Sheng Li**. “Few-shot Fine-grained Image Classification with Interpretable Prompt Learning through Distribution Alignment.” *The 27th ACM International Conference on Multimodal Interaction (ICMI)*, 2025.
- [C21] Mei Yang, Dongliang Guo, **Sheng Li**, Steven Binder, Cole Sterck, and Mable Fok. “Motion Reconstruction of an Inchworm Inspired Soft Robotic Climber Using Fiber Optic Sensors and Neural Network.” *Optical Fiber Communications (OFC) Conference*, 2025.
- [C22] Zhanwen Chen, Tianchun Wang, Yizhou Wang, Michal Kosinski, Xiang Zhang, Yun Fu, and **Sheng Li**. “Through the Theory of Mind’s Eye: Reading Minds with Multimodal Video Large Language Models.” *International Joint Conference on Neural Networks (IJCNN)*, 2025.
- [C23] Runtao Zhang\*, Guangya Wan\*, Saadia Gabriel, **Sheng Li**, Alex Gates, Maarten Sap, and Thomas Hartvigsen. “Disparities in LLM Reasoning Accuracy and Explanations: A Case Study on African American English.” *The Multilingual and Equitable Language Technologies (MELT) Workshop at COLM*, 2025.
- [C24] Daiqing Qi, Handong Zhao, and **Sheng Li**. “Easy Regional Contrastive Learning of Expressive Visual Fashion Representations”, *The Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2024.

- [C25] Daiqing Qi, Handong Zhao, Aidong Zhang, and **Sheng Li**. “Generalizing to Unseen Domains via Text-guided Augmentation: A Training-free Approach”, *European Conference on Computer Vision (ECCV)*, 2024.
- [C26] Daiqing Qi, , Handong Zhao, Zijun Wei, and **Sheng Li**. “Tag-grounded Visual Instruction Tuning with Retrieval Augmentation”, *The Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2024.
- [C27] Yu Wang, Ronghang Zhu, Pengsheng Ji, and **Sheng Li**. “Open-Set Graph Domain Adaptation via Separate Domain Alignment.” *The 38th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2024.
- [C28] Zhixuan Chu, Mengxuan Hu, Qing Cui, Longfei Li, and **Sheng Li**. “Task-Driven Causal Feature Distillation: Towards Trustworthy Risk Prediction.” *The 38th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2024.
- [C29] Yan Wang, Zhixuan Chu, Xin Ouyang, Simeng Wang, Hongyan Hao, Yue Shen, Jinjie Gu, Siqiao Xue, James Zhang, Qing Cui, Longfei Li, Jun Zhou, and **Sheng Li**. LLMRG: Improving Recommendations through Large Language Model Reasoning Graphs. *The 38th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2024.
- [C30] Zihan Guan, Mengxuan Hu, Zhongliang Zhou, Jielu Zhang, **Sheng Li**, and Ninghao Liu. “BadSAM: Exploring Security Vulnerabilities of SAM via Backdoor Attacks (Student Abstract).” *The 38th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2024.
- [C31] Yaochen Zhu, Yinhan He, Jing Ma, Mengxuan Hu, **Sheng Li**, and Jundong Li. “Causal Inference with Latent Variables: Recent Advances and Future Prospectives.” *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2024. (Tutorial Track & Survey Paper).
- [C32] Dongliang Guo, Yun Fu, and **Sheng Li**. “Ada-VAD: Domain Adaptable Video Anomaly Detection”. *SIAM International Conference on Data Mining (SDM)*, 2024.
- [C33] Zhongliang Zhou, Jielu Zhang, Zihan Guan, Mengxuan Hu, Ni Lao, Lan Mu, **Sheng Li**, and Gengchen Mai. “Img2Loc: revisiting image localization using multi-modality foundation models and Image-based Retrieval-Augmented Generation.” (Demo Paper) *The 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2024.
- [C34] Jielu Zhang, Zhongliang Zhou, Gengchen Mai, Mengxuan Hu, Zihan Guan, **Sheng Li**, and Lan Mu. “Text2Seg: Zero-shot Remote Sensing Image Semantic Segmentation via Text-Guided Visual Foundation Models.” *The 7th ACM SIGSPATIAL International Workshop on AI for Geographic Knowledge Discovery (GeoAI)*, 2024.
- [C35] Dongliang Guo, Zhixuan Chu, **Sheng Li**. “Fair Attribute Completion on Graph with Missing Attributes.” *International Conference on Learning Representations (ICLR)*, 2023.
- [C36] Daiqing Qi, Handong Zhao, and **Sheng Li**. “Better Generative Replay for Continual Federated Learning.” *International Conference on Learning Representations (ICLR)*, 2023.
- [C37] Ronghang Zhu, Xiang Yu, and **Sheng Li**. “Progressive Mix-Up for Few-Shot Supervised Multi-Source Domain Transfer.” *International Conference on Learning Representations (ICLR)*, 2023.
- [C38] Zhaiming Shen, Ming-Jun Lai, **Sheng Li**. “Graph-based Semi-supervised Local Clustering with Few Labeled Nodes.” *The 32nd International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. (Acceptance Rate: 15%)
- [C39] Yunyi Zhou, Zhixuan Chu, Yijia Ruan, Ge Jin, Yuchen Huang, and **Sheng Li**. “pTSE: A Multi-model Ensemble Method for Probabilistic Time Series Forecasting.” *The 32nd International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. (Acceptance Rate: 15%)
- [C40] Yitian Zhang, Yue Bai, Chang Liu, Huan Wang, **Sheng Li**, and Yun Fu. “Frame Flexible Network.” *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.

- [C41] Zhixuan Chu, Ruopeng Li, Stephen Rathbun, and **Sheng Li**. “Continual Causal Inference with Incremental Observational Data.” *The 39th IEEE International Conference on Data Engineering (ICDE)*, 2023.
- [C42] Saed Rezayi, Handong Zhao, Ronghang Zhu, and **Sheng Li**. “XDC: Adaptive Cross Domain Short Text Clustering.” *SIAM International Conference on Data Mining (SDM)*, 2023.
- [C43] Zhixuan Chu, Mechelle Claridy, Jose Cordero, **Sheng Li**, and Stephen Rathbun. “Estimating Propensity Scores with Deep Adaptive Variable Selection.” *SIAM International Conference on Data Mining (SDM)*, 2023.
- [C44] **Sheng Li**. “Towards Trustworthy Representation Learning.” *SIAM International Conference on Data Mining (SDM)* (Blue Sky Idea Track), 2023.
- [C45] Weili Shi, Xueying Yang, Xujiang Zhao, Haifeng Chen, Zhiqiang Tao, and **Sheng Li**. “Calibrate Graph Neural Networks under Out-of-Distribution Nodes via Deep Q-learning.” *The 32nd ACM International Conference on Information and Knowledge Management (CIKM)*, 2023.
- [C46] Zhixuan Chu and **Sheng Li**. “Continual Causal Inference: Challenges and Opportunities.” *The Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI)* (Bridge Program - Continual Causality), 2023
- [C47] Zhanwen Chen, Saed Rezayi, **Sheng Li**. “More Knowledge, Less Bias: Unbiasing Scene Graph Generation with Explicit Ontological Adjustment.” *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2023.
- [C48] Hemadri Jayalath, Ghadeer Yassin, Lakshmish Ramaswamy, and **Sheng Li**. “Continual Optimization of In-Production Machine Learning Systems through Semantic Analysis of User Feedback.” *The 15th International Conference on Agents and Artificial Intelligence (ICAART)*, 2023.
- [C49] Weili Shi, Zhongliang Zhou, Ben Letcher, Nathaniel Hitt, Yoichiro Kanno, Ryo Futamura, Osamu Kishida, Kentar Morita, and **Sheng Li**. “Aging Contrast: A Contrastive Learning Framework for Fish Re-identification Across Seasons and Years”. *The 36th Australasian Joint Conference on Artificial Intelligence (AJCAI)*, 2023.
- [C50] Wenxiong Liao, Zhengliang Liu, Yiyang Zhang, Xiaoke Huang, Fei Qi, Siqi Ding, Hui Ren, Zihao Wu, Haixing Dai, **Sheng Li**, Lingfei Wu, Ninghao Liu, Quanzheng Li, Tianming Liu, Xiang Li, and Hongmin Cai. “Coarse-to-fine Knowledge Graph Domain Adaptation based on Distantly-supervised Iterative Training”. *IEEE International Conference on Bioinformatics and Biomedicine. (BIBM)*, 2023.
- [C51] Weili Shi, Ronghang Zhu, and **Sheng Li**. “Pairwise Adversarial Training for Unsupervised Class-imbalanced Domain Adaptation.” *The 28th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 1598-1606, 2022. (Acceptance Rate: 15%) [Views & Downloads: 88]  
DOI: <https://doi.org/10.1145/3534678.3539243>
- [C52] Ronghang Zhu and **Sheng Li**. “CrossMatch: Cross-Classifer Consistency Regularization for Open-Set Single Domain Generalization.” *International Conference on Learning Representations (ICLR)*, 2022. (Acceptance Rate: 28%)
- [C53] Saed Rezayi, Zhengliang Liu, Zihao Wu, Chandra Dhakal, Bao Ge, Chen Zhen, Tianming Liu, and **Sheng Li**. “AgriBERT: Knowledge-Infused Agricultural Language Models for Matching Food and Nutrition.” *The 31st International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 5150-5156, 2022. (Acceptance Rate: 15%)  
DOI: <https://doi.org/10.24963/ijcai.2022/715>
- [C54] Ronghang Zhu and **Sheng Li**. “Self-supervision based Semantic Alignment for Unsupervised Domain Adaptation.” *SIAM International Conference on Data Mining (SDM)*, pp. 1-9, 2022. (Acceptance Rate: 26%)  
DOI: <https://doi.org/10.1137/1.9781611977172.1>

- [C55] Zhixuan Chu, Stephen Rathbun, and **Sheng Li**. “Learning Infomax and Domain-Independent Representations for Causal Effect Inference with Observational Data.” *SIAM International Conference on Data Mining (SDM)*, pp. 433-441, 2022. (Acceptance Rate: 26%)  
DOI: <https://doi.org/10.1137/1.9781611977172.49>
- [C56] Yue Bai, Zhiqiang Tao, Lichen Wang, **Sheng Li**, Yu Yin, and Yun Fu. “Collaborative Attention Mechanism for Multi-Modal Time Series Classification.” *SIAM International Conference on Data Mining (SDM)*, pp. 495-503, 2022. (Acceptance Rate: 26%)  
DOI: <https://doi.org/10.1137/1.9781611977172.56>
- [C57] Saed Rezayi, Handong Zhao and **Sheng Li**. “XDC: Adversarial Adaptive Cross Domain Face Clustering (Student Abstract).” *The Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI)*, 36(11):13035-13036, 2022.  
DOI: <https://doi.org/10.1609/aaai.v36i11.21654>
- [C58] Zhixuan Chu, Stephen Rathbun and **Sheng Li**. “Multi-Task Adversarial Learning for Treatment Effect Estimation in Basket Trials.” *AHLI Conference on Health, Inference and Learning (CHIL)*, PMLR 174:79-91, 2022. (Acceptance Rate: 33%)
- [C59] Zhixuan Chu, Hui Ding, Guang Zeng, Yuchen Huang, Tan Yan, Yulin Kang and **Sheng Li**. “Hierarchical Capsule Prediction Network for Marketing Campaigns Effect.” *The 31st ACM International Conference on Information and Knowledge Management (CIKM)*, 2022. (Acceptance Rate: 24%)
- [C60] Xueying Yang, Jiamian Wang, Xujiang Zhao, **Sheng Li**, and Zhiqiang Tao. “Calibrate Automated Graph Neural Network via Hyperparameter Uncertainty.” *The 31st ACM International Conference on Information and Knowledge Management (CIKM)*, 2022. (Acceptance Rate: 24%)
- [C61] Weili Shi and **Sheng Li**. “Improving Robustness of Vision Transformers via Data-Augmented Virtual Adversarial Training”. *IEEE International Conference on Big Data (IEEE BigData)*, 2022.
- [C62] Zhongliang Zhou, Nathaniel Hitt, Benjamin Letcher, Weili Shi and **Sheng Li**. “Pigmentation based Visual Learning for *Salvelinus fontinalis* Individual Re-identification”. *IEEE International Conference on Big Data (IEEE BigData)*, 2022.
- [C63] Saed Rezayi, Haixing Dai, Zhengliang Liu, Zihao Wu, Akarsh Hebbar, Andrew H. Burns, Lin Zhao, Dajiang Zhu, Xiang Li, Quanzheng Li, Wei Liu, **Sheng Li**, Tianming Liu. “ClinicalRadioBERT: Knowledge-Infused Few Shot Learning for Clinical Notes Named Entity Recognition.” *International Workshop on Machine Learning in Medical Imaging (in conjunction with MICCAI)*, 2022.
- [C64] Zhixuan Chu, Stephen Rathbun and **Sheng Li**. “Graph Infomax Adversarial Learning for Treatment Effect Estimation with Networked Observational Data.” *The 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 176-184, 2021. (Acceptance Rate: 15%) [Views & Downloads: 289]  
DOI: <https://doi.org/10.1145/3447548.3467302>
- [C65] Saed Rezayi, Handong Zhao, Sungchul Kim, Ryan Rossi, Nedim Lipka and **Sheng Li**. “EDGE: Enriching Knowledge Graph Embeddings with External Text.” *The Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, pp. 2767-2776, 2021. (Long Paper; Acceptance Rate: 29%)  
DOI: <http://dx.doi.org/10.18653/v1/2021.naacl-main.221>
- [C66] Yue Bai, Lichen Wang, Zhiqiang Tao, **Sheng Li** and Yun Fu. “Correlative Channel-Aware Fusion for Multi-View Time Series Classification.” *The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI)*, 35(8):6714-6722, 2021. (Acceptance Rate: 21%)  
DOI: <https://doi.org/10.1609/aaai.v35i8.16830>
- [C67] Ronghang Zhu, Zhiqiang Tao, Yaliang Li, and **Sheng Li**. “Automated Graph Learning via Population Based Self-Tuning GCN.” *The 42nd International ACM SIGIR Conference on*

- Research and Development in Information Retrieval (SIGIR)*, pp. 2096-2100, 2021. (Acceptance Rate: 27%)  
DOI: <https://doi.org/10.1145/3404835.3463056>
- [C68] Liuyi Yao, Yaliang Li, **Sheng Li**, Mengdi Huai, Jing Gao and Aidong Zhang. "SCI: Subspace Learning Based Counterfactual Inference for Individual Treatment Effect Estimation." *The 30th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 3583-3587, 2021. (Acceptance Rate: 28%)  
DOI: <https://doi.org/10.1145/3459637.3482175>
- [C69] Ronghang Zhu and **Sheng Li**. "Self-supervised Universal Domain Adaptation with Adaptive Memory Separation." *IEEE International Conference on Data Mining (ICDM)*, pp. 1547-1552, 2021. (Acceptance Rate: 19%)  
DOI: <https://doi.org/10.1109/ICDM51629.2021.00203>
- [C70] Xiaowei Jia, Yiqun Xie, **Sheng Li**, Shengyu Chen, Jacob Zwart, Jeffrey Sadler, Alison Appling, Samantha Oliver, and Jordan Read. "Physics-Guided Machine Learning from Simulation Data: An Application in Modeling Lake and River Systems." *IEEE International Conference on Data Mining (ICDM)*, pp. 270-279, 2021. (Acceptance Rate: 19%; Selected as one of **Best-Ranked Papers** at ICDM-2021)  
DOI: <https://doi.org/10.1109/ICDM51629.2021.00037>
- [C71] Ronghang Zhu, Xiaodong Jiang, Jiasen Lu, and **Sheng Li**. "Transferable Feature Learning on Graphs Across Visual Domains." *IEEE International Conference on Multimedia and Expo (ICME)*, pp. 1-6, 2021. (Acceptance Rate: 15%; Selected as one of **Top Papers** at ICME-2021)  
DOI: <https://doi.org/10.1109/ICME51207.2021.9428079>
- [C72] Kang Yuan, **Sheng Li**. "2.5D Pose Guided Human Image Generation." *ACM International Conference on Multimedia Retrieval (ICMR)*, pp. 501-505, 2021. (Acceptance Rate: 29%)  
DOI: <https://doi.org/10.1145/3460426.3463580>
- [C73] Saed Rezayi, Nedim Lipka, Vishwa Vinay, Ryan A. Rossi, Franck Dernoncourt, Tracy H. King, **Sheng Li**. "A Framework for Knowledge-Derived Query Suggestions." *IEEE International Conference on Big Data (IEEE BigData)*, pp. 510-518, 2021. (Acceptance Rate: 19%)  
DOI: <https://doi.org/10.1109/BigData52589.2021.9671344>
- [C74] Saed Rezayi, Saber Soleymani, Hamid R. Arabnia and **Sheng Li**. "Socially Aware Multimodal Deep Neural Networks for Fake News Classification." *IEEE 4th International Conference on Multimedia Information Processing and Retrieval (MIPR)*, pp. 253-259, 2021. (Acceptance Rate: 20%)  
DOI: <https://doi.org/10.1109/MIPR51284.2021.00048>
- [C75] Sumer Singh and **Sheng Li**. "Exploiting Auxiliary Data for Offensive Language Detection with Bidirectional Transformers." *ACL Workshop on Online Abuse and Harms (ACL WOA)*, pp. 1-5, 2021.  
DOI: <http://dx.doi.org/10.18653/v1/2021.woa-1.1>
- [C76] Zhixuan Chu, Stephen Rathbun and **Sheng Li**. "Matching in Selective and Balanced Representation Space for Treatment Effects Estimation." *The 29th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 205-214, 2020. (Full Paper, Acceptance Rate: 21%)  
DOI: <https://doi.org/10.1145/3340531.3412037>
- [C77] Abhilash Dorle, Fangyu Li, Wenzhan Song and **Sheng Li**. "Learning Discriminative Virtual Sequences for Time Series Classification." *The 29th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 2001-2004, 2020. (Short Paper, Acceptance Rate: 25%)  
DOI: <https://doi.org/10.1145/3340531.3412099>

- [C78] Peng Cui, Zheyang Shen, **Sheng Li**, Liuyi Yao, Yaliang Li, Zhixuan Chu and Jing Gao. “Causal Inference Meets Machine Learning.” *The 26th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 3527-2538, 2020.  
DOI: <https://doi.org/10.1145/3394486.3406460>
- [C79] **Sheng Li** and Handong Zhao. “A Survey on Representation Learning for User Modeling.” *The 29th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4997-5003, 2020. (Acceptance Rate: 13%)  
DOI: <https://doi.org/10.24963/ijcai.2020/695>
- [C80] Heng-Shiou Sheu and **Sheng Li**. “Context-aware Graph Embedding for Session-based News Recommendation.” *The 14th ACM Conference on Recommender Systems (ACM RecSys)*, pp. 657-662, 2020. (Acceptance Rate: 20%)  
DOI: <https://doi.org/10.1145/3383313.3418477>
- [C81] Xiaodong Jiang, Pengsheng Ji and **Sheng Li**. “CensNet: Convolution with Edge-Node Switching in Graph Neural Networks.” *The 28th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 2656-2662, 2019. (Acceptance Rate: 17.9%)  
DOI: <https://doi.org/10.24963/ijcai.2019/369>
- [C82] Liuyi Yao, **Sheng Li**, Yaliang Li, Hongfei Xue, Jing Gao, Aidong Zhang. “On the Estimation of Treatment Effect with Text Covariates.” *The 28th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4106-4113, 2019. (Acceptance Rate: 17.9%)  
DOI: <https://doi.org/10.24963/ijcai.2019/570>
- [C83] Zhao Zhang, Weiming Jiang, Zheng Zhang, **Sheng Li**, Guangcan Liu, Jie Qin. “Scalable Block-Diagonal Locality-Constrained Projective Dictionary Learning.” *The 28th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4376-4382, 2019. (Acceptance Rate: 17.9%)  
DOI: <https://doi.org/10.24963/ijcai.2019/608>
- [C84] Zhiqiang Tao, **Sheng Li**, Zhaowen Wang, Chen Fang, Longqi Yang, Handong Zhao and Yun Fu. “Log2Intent: Towards Interpretable User Modeling via Recurrent Semantics Memory Unit”. *The 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 1055-1063, 2019. (Oral Presentation; Acceptance Rate: 9.2%)  
DOI: <https://doi.org/10.1145/3292500.3330889>
- [C85] Xiaowei Jia, **Sheng Li**, Handong Zhao, Sungchul Kim and Vipin Kumar. “Towards Robust and Discriminative Sequential Data Learning: When and How to Perform Adversarial Training?” *The 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 1665-1673, 2019. (Acceptance Rate: 14%)  
DOI: <https://doi.org/10.1145/3292500.3330957>
- [C86] Jiuxiang Gu, Handong Zhao, Zhe Lin, **Sheng Li**, Jianfei Cai, Mingyang Ling. “Scene Graph Generation with External Knowledge and Image Reconstruction”. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1969-1978, 2019. (Acceptance Rate: 25.2%)
- [C87] Xiaowei Jia, **Sheng Li**, Ankush Khandelwal, Guruprasad Nayak, Anuj Karpatne, and Vipin Kumar. “Spatial Context-Aware Networks for Mining Temporal Discriminative Period in Land Cover Detection”. *SIAM International Conference on Data Mining (SDM)*, pp. 513-521, 2019. (Acceptance Rate: 22.7%)  
DOI: <https://doi.org/10.1137/1.9781611975673.58>
- [C88] Zheng Zhang, Yang Li, **Sheng Li**, Guosen Xie and Zi Huang. “SADIH: Semantic-Aware DIcrete Hashing”. *The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI)*, 33(01):5853-5860, 2019. (Acceptance Rate: 16.2%)  
DOI: <https://doi.org/10.1609/aaai.v33i01.33015853>
- [C89] Donghyun Kim, Sungchul Kim, Handong Zhao, Ryan Rossi, **Sheng Li**, and Eunye Koh. “Domain Switch-Aware Holistic Recurrent Neural Network for Modeling Multi-Domain User Behavior.” *The 12th ACM International Conference on Web Search and Data Mining*

- (*WSDM*), pp. 663-671, 2019. (Acceptance Rate: 16.4%)  
DOI: <https://doi.org/10.1145/3289600.3291019>
- [C90] Xueyu Mao, Saayan Mitra and **Sheng Li**. “Training Streaming Factorization Machines with Alternating Least Squares.” *The 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, pp. 1185-1188, 2019. (Acceptance Rate: 24.4%)  
DOI: <https://doi.org/10.1145/3331184.3331374>
- [C91] Zhao Zhang, Jiahuan Ren, **Sheng Li**, Richang Hong, Zhengjun Zha and Meng Wang. “Robust Subspace Discovery by Block-diagonal Adaptive Locality-constrained Representation.” *The 27th ACM International Conference on Multimedia (MM)*, pp. 1569-1577, 2019. (Acceptance Rate: 26.9%)  
DOI: <https://doi.org/10.1145/3343031.3351023>
- [C92] Liuyi Yao, **Sheng Li**, Yaliang Li, Mengdi Huai, Jing Gao and Aidong Zhang. “ACE: Adaptively Similarity-preserved Representation Learning for Individual Treatment Effect Estimation.” *IEEE International Conference on Data Mining (ICDM)*, pp. 1432-1437, 2019. (Acceptance Rate: 9.1%)  
DOI: <https://doi.org/10.1109/ICDM.2019.00186>
- [C93] Zhao Zhang, Lei Wang, Yang Wang, **Sheng Li**, Zheng Zhang, Zhengjun Zha, and Meng Wang. “Adaptive Structure-Constrained Robust Latent Low-Rank Coding for Image Recovery.” *IEEE International Conference on Data Mining (ICDM)*, pp. 846-855, 2019. (Acceptance Rate: 9.1%)  
DOI: <https://doi.org/10.1109/ICDM.2019.00095>
- [C94] Zhao Zhang, Yan Zhang, **Sheng Li**, Guangcan Liu, Meng Wang and Shuicheng Yan. “Robust Unsupervised Flexible Auto-weighted Local-Coordinate Concept Factorization for Image Clustering.” *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, pp. 2092-2096, 2019.  
DOI: <https://doi.org/10.1109/ICASSP.2019.8683263>
- [C95] Liuyi Yao, **Sheng Li**, Yaliang Li, Mengdi Huai, Jing Gao, and Aidong Zhang. “Representation Learning for Treatment Effect Estimation from Observational Data”. *The Thirty-second Annual Conference on Neural Information Processing Systems (NeurIPS)*, pp. 2638-2648, 2018. (Acceptance Rate: 20.8%)
- [C96] Kai Li, **Sheng Li**, Zhengming Ding, Weidong Zhang, and Yun Fu. “Latent Discriminant Subspace Representations for Multi-view Outlier Detection”. *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 32(1), 2018. (Acceptance Rate: 24.6%)  
DOI: <https://doi.org/10.1609/aaai.v32i1.11826>
- [C97] Kai Li, Zhengming Ding, **Sheng Li**, and Yun Fu. “Discriminative Semi-coupled Projective Dictionary Learning for Low-Resolution Person Re-Identification”. *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 32(1), 2018. (Acceptance Rate: 24.6%)  
DOI: <https://doi.org/10.1609/aaai.v32i1.11908>
- [C98] Shumin Jing, **Sheng Li**. “Contextual Collaborative Filtering for Student Response Prediction in Mixed-Format Tests”. *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 32(1), 2018.  
DOI: <https://doi.org/10.1609/aaai.v32i1.12187>
- [C99] Zhengming Ding, **Sheng Li**, Ming Shao and Yun Fu. “Graph Adaptive Knowledge Transfer for Unsupervised Domain Adaptation”. *European Conference on Computer Vision (ECCV)*, pp. 37-52, 2018. (Acceptance Rate: 31.8%)  
DOI: [https://doi.org/10.1007/978-3-030-01216-8\\_3](https://doi.org/10.1007/978-3-030-01216-8_3)
- [C100] Zhengming Ding, Ming Shao, **Sheng Li**, and Yun Fu. “Generic Embedded Semantic Dictionary for Robust Multi-label Classification.” *IEEE International Conference on Big Knowledge (ICBK)*, pp. 282-289, 2018.  
DOI: <https://doi.org/10.1109/ICBK.2018.00045>

- [C101] Tuan Manh Lai, Trung Bui, **Sheng Li**. “A Review on Deep Learning Techniques Applied to Answer Selection”. *The 27th International Conference on Computational Linguistics (COLING)*, pp. 2132-2144, 2018. (Acceptance Rate: 37.4%)
- [C102] Tuan Manh Lai, Trung Bui, Nedim Lipka, **Sheng Li**. “Supervised Transfer Learning for Product Information Question Answering.” *IEEE 17th International Conference on Machine Learning and Applications (ICMLA)*, pp. 1109-1114, 2018. (Acceptance Rate: 31%)  
DOI: <https://doi.org/10.1109/ICMLA.2018.00180>
- [C103] Tuan Manh Lai, Trung Bui, **Sheng Li**, Nedim Lipka. “A Simple End-to-End Question Answering Model for Product Information”. *ACL Workshop on Economics and Natural Language Processing (ACL ECONLP)*, pp. 38-43, 2018.  
DOI: <http://dx.doi.org/10.18653/v1/W18-3105>
- [C104] Zhao Zhang, Weiming Jiang, **Sheng Li**, Jie Qin, Guangcan Liu, Shuicheng Yan “Robust Locality-Constrained Label Consistent KSVD by Joint Sparse Embedding”. *International Conference on Pattern Recognition (ICPR)*, pp. 1664-1669, 2018. (Acceptance Rate: 51%)  
DOI: <https://doi.org/10.1109/ICPR.2018.8545446>
- [C105] Jiahuan Ren, Zhao Zhang, **Sheng Li**, Guangcan Liu, Meng Wang, Shuicheng Yan. “Robust Projective Low-Rank and Sparse Representation by Robust Dictionary Learning”. *International Conference on Pattern Recognition (ICPR)*, pp. 1851-1856, 2018. (Acceptance Rate: 51%)  
DOI: <https://doi.org/10.1109/ICPR.2018.8546056>
- [C106] Huan Zhang, Zhao Zhang, **Sheng Li**, Qiaolin Ye, Mingbo Zhao, Meng Wang. “Robust Adaptive Label Propagation by Double Matrix Decomposition”. *International Conference on Pattern Recognition (ICPR)*, pp. 2160-2165, 2018. (Acceptance Rate: 51%)  
DOI: <https://doi.org/10.1109/ICPR.2018.8545594>
- [C107] Lei Wang, Zhao Zhang, **Sheng Li**, Guangcan Liu, Chenping Hou and Jie Qin. “Similarity-Adaptive Latent Low-Rank Representation for Robust Data Representation”. *The 15th Pacific Rim International Conference on Artificial Intelligence (PRICAI)*, 2018. (Acceptance Rate: 21.5%)  
DOI: [https://doi.org/10.1007/978-3-319-97304-3\\_6](https://doi.org/10.1007/978-3-319-97304-3_6)
- [C108] **Sheng Li**, Yun Fu. “Matching on Balanced Nonlinear Representations for Treatment Effects Estimation”. *The Thirty-first Annual Conference on Neural Information Processing Systems (NeurIPS)*, pp.930-940, 2017. (Acceptance Rate: 20.9%)
- [C109] **Sheng Li**, Yun Fu. “Robust Multi-Label Semi-Supervised Classification”. *IEEE International Conference on Big Data (IEEE BigData)*, pp. 27-36, 2017. (Acceptance Rate: 17.8%)  
DOI: <https://doi.org/10.1109/BigData.2017.8257908>
- [C110] **Sheng Li**, Hongfu Liu, Zhiqiang Tao, and Yun Fu. “Multi-View Graph Learning with Adaptive Label Propagation”. *IEEE International Conference on Big Data (IEEE BigData)*, pp. 110-115, 2017. (Acceptance Rate: 17.8%)  
DOI: <https://doi.org/10.1109/BigData.2017.8257918>
- [C111] Zhiqiang Tao, Hongfu Liu, **Sheng Li**, Zhengming Ding, and Yun Fu. “From Ensemble Clustering to Multi-View Clustering”. *The 26th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 2843-2849, 2017. (Acceptance Rate: 26%)  
DOI: <https://doi.org/10.24963/ijcai.2017/396>
- [C112] **Sheng Li**, Nikos Vlassis, Jaya Kawale and Yun Fu. “Matching via Dimensionality Reduction for Estimation of Treatment Effects in Digital Marketing Campaigns”, *The 25th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 3768-3774, 2016. (Acceptance Rate: 24%)
- [C113] **Sheng Li**. “Learning Robust Representations for Data Analytics,” *The 25th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4010-4011, 2016.
- [C114] **Sheng Li**, Yaliang Li and Yun Fu. “Multi-View Time Series Classification: A Discriminative Bilinear Projection Approach”, *The 25th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 989-998, 2016. (Long Paper; Acceptance Rate:

17.6%)

DOI: <https://doi.org/10.1145/2983323.2983780>

- [C115] Zhiqiang Tao, Hongfu Liu, **Sheng Li** and Yun Fu. “Robust Spectral Ensemble Clustering”, *The 25th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 367-376, 2016. (Long Paper; Acceptance Rate: 18%) DOI: <https://doi.org/10.1145/2983323.2983745>
- [C116] Hongfu Liu, Ming Shao, **Sheng Li** and Yun Fu. “Infinite Ensemble for Image Clustering”, *The 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, pp. 1745-1754, 2016. (Acceptance Rate: 20%) DOI: <https://doi.org/10.1145/2939672.2939813>
- [C117] **Sheng Li** and Yun Fu. “Unsupervised Transfer Learning via Low-Rank Coding for Image Clustering”, *International Joint Conference on Neural Networks (IJCNN)*, 1795-1802, 2016. DOI: <https://doi.org/10.1109/IJCNN.2016.7727417>
- [C118] Guoqiang Zhong, Yan Zheng, **Sheng Li** and Yun Fu. “Scalable Large Margin Online Metric Learning”, *International Joint Conference on Neural Networks (IJCNN)*, pp. 2252-2259, 2016. DOI: <https://doi.org/10.1109/IJCNN.2016.7727478>
- [C119] **Sheng Li**, Kang Li and Yun Fu. “Temporal Subspace Clustering for Human Motion Segmentation”, *International Conference on Computer Vision (ICCV)*, pp. 4453-4461, 2015. (Acceptance Rate: 30.9%) DOI: <https://doi.org/10.1109/ICCV.2015.506>
- [C120] **Sheng Li**, Ming Shao and Yun Fu. “Cross-View Projective Dictionary Learning for Person Re-identification”, *International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 2155-2161, 2015. (Acceptance Rate: 28.7%)
- [C121] Ming Shao, **Sheng Li**, Zhengming Ding and Yun Fu. “Deep Linear Coding for Fast Graph Clustering”, *International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 3798-3804, 2015. (Acceptance Rate: 28.7%)
- [C122] **Sheng Li**, Jaya Kawale and Yun Fu. “Deep Collaborative Filtering via Marginalized Denoising Auto-encoder”, *The 24th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 811-820, 2015. (Long Paper; Acceptance Rate: 18%) DOI: <https://doi.org/10.1145/2806416.2806527>
- [C123] **Sheng Li**, Jaya Kawale and Yun Fu. “Predicting User Behavior in Display Advertising via Dynamic Collective Matrix Factorization”, *The 38th ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, pp. 875-878, 2015. (Acceptance Rate: 31%) DOI: <https://doi.org/10.1145/2766462.2767781>
- [C124] **Sheng Li**, Ming Shao and Yun Fu. “Multi-View Low-Rank Analysis for Outlier Detection”, *SIAM International Conference on Data Mining (SDM)*, pp. 748-756, 2015. (Acceptance Rate: 25%) DOI: <https://doi.org/10.1137/1.9781611974010.84>
- [C125] **Sheng Li** and Yun Fu. “Robust Subspace Discovery through Supervised Low-Rank Constraints”, *SIAM International Conference on Data Mining (SDM)*, pp. 163-171, 2014. (Oral Presentation, **Best Paper Award**, 1 out of 389 submissions) DOI: <https://doi.org/10.1137/1.9781611973440.19>
- [C126] Kang Li, **Sheng Li** and Yun Fu. “Early Classification of Ongoing Observation”, *IEEE International Conference on Data Mining (ICDM)*, pp. 310-319, 2014. (Regular Paper, Acceptance Rate: 9.7%) DOI: <https://doi.org/10.1109/ICDM.2014.100>
- [C127] **Sheng Li**, Ming Shao and Yun Fu. “Locality Linear Fitting One-class SVM with Low-Rank Constraints for Outlier Detection”, *International Joint Conference on Neural Networks (IJCNN)*, pp. 676-683, 2014. DOI: <https://doi.org/10.1109/IJCNN.2014.6889446>

- [C128] Ming Shao, **Sheng Li**, Tongliang Liu, Dacheng Tao, Thomas S. Huang and Yun Fu. "Learning Relative Features Through Adaptive Pooling for Image Classification," *IEEE International Conference on Multimedia and Expo (ICME)*, pp. 1-6, 2014. (Oral Presentation, **Best Paper Award Candidate**, 4 out of 716 submissions)  
DOI: <https://doi.org/10.1109/ICME.2014.6890269>
- [C129] **Sheng Li** and Yun Fu. "Low-Rank Coding with  $b$ -Matching Constraint for Semi-supervised Classification," *International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 1472-1478, 2013. (Acceptance Rate: 28%)
- [C130] **Sheng Li**, Peng Li and Yun Fu. "Understanding 3D Human Torso Shape via Manifold Clustering," *SPIE Defense, Security, and Sensing (DSS)*, 8750, 2013.  
DOI: <https://doi.org/10.1117/12.2018314>
- [C131] Liangyue Li, **Sheng Li** and Yun Fu. "Discriminative Dictionary Learning with Low-Rank Regularization for Face Recognition," *The 10th IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, pp. 1-6, 2013. (**Best Student Paper Honorable Mention Award**)  
DOI: <https://doi.org/10.1109/FG.2013.6553696>
- [C132] **Sheng Li**, Xiaoyuan Jing, David Zhang, Yongfang Yao, and Lusha Bian. "A Novel Kernel Discriminant Feature Extraction Framework based on Mapped Virtual Samples for Face Recognition," *IEEE International Conference on Image Processing (ICIP)*, pp. 3066-3069, 2011.  
DOI: <https://doi.org/10.1109/ICIP.2011.6116295>
- [C133] Xiaoyuan Jing, **Sheng Li**, David Zhang, and Jingyu Yang. "Face Recognition based on Local Uncorrelated and Weighted Global Uncorrelated Discriminant Transforms," *IEEE International Conference on Image Processing (ICIP)*, pp. 3110-3113, 2011.  
DOI: <https://doi.org/10.1109/ICIP.2011.6116307>
- [C134] Xiaoyuan Jing, **Sheng Li**, Songhao Zhu, Qian Liu, Jingyu Yang, and Jiasen Lu. "Supervised Local Sparsity Preserving Projection for Face Feature Extraction," *The First Asian Conference on Pattern Recognition (ACPR)*, pp. 555-559, 2011.  
DOI: <https://doi.org/10.1109/ACPR.2011.6166662>
- [C135] Xiao-Yuan Jing, **Sheng Li**, Yongfang Yao, etc. "Multi-Modal Biometric Feature Extraction and Recognition Based on Subclass Discriminant Analysis (SDA) and Generalized Singular Value Decomposition (GSVD)". *International Conference on Hand-Based Biometrics (ICHB)*, 2011.  
DOI: <https://doi.org/10.1109/ICHB.2011.6094337>
- [C136] Xiaoyuan Jing, **Sheng Li**, Yongfang Yao, Lusha Bian, and Jingyu Yang. "Kernel Uncorrelated Adjacent-Class Discriminant Analysis," *International Conference on Pattern Recognition (ICPR)*, pp. 706-709, 2010.  
DOI: <https://doi.org/10.1109/ICPR.2010.178>
- [C137] Xiaoyuan Jing, Qian Liu, Chao Lan, Jiangyue Man, **Sheng Li**, David Zhang. "Holistic orthogonal analysis of discriminant transforms for color face recognition," *IEEE International Conference on Image Processing (ICIP)*, pp. 3841-3844, 2010.  
DOI: <https://doi.org/10.1109/ICIP.2010.5654099>
- [C138] Chao Lan, Xiao-yuan Jing, **Sheng Li**, Lu-Sha Bian, Yong-Fang Yao. "Exploring the Natural Discriminative Information of Sparse Representation for Feature Extraction". *The 3rd International Congress on Image and Signal Processing (CISP)*: 916-920, 2010.  
DOI: <https://doi.org/10.1109/CISP.2010.5646901>
- [C139] **Sheng Li**, Xiaoyuan Jing, Qian Liu, Yanyan Lv, Yongfang Yao, and Wei Xu. "Kernel-plural Discriminant Analysis based on Fourier Transform and Its Application to Face Recognition," *Chinese Conference on Pattern Recognition (CCPR)*, pp. 503-507, 2009.  
DOI: <https://doi.org/10.1109/CCPR.2009.5344052>

- [C140] **Sheng Li**, Yongfang Yao, Xiaoyuan Jing, Zhuli Shao, David Zhang, and Jingyu Yang. “Nonlinear DCT Discriminant Feature Extraction with Generalized KDCV for Face Recognition,” *Proceedings of International Symposium on Intelligent Information Technology Application (IITA)*, vol. 3, pp. 338-341, 2008.  
DOI: <https://doi.org/10.1109/IITA.2008.187>

- **Journal Papers**

- [J1] Wenqian Ye, Luyang Jiang, Eric Xie, Guangtao Zheng, Yunsheng Ma, Xu Cao, Dongliang Guo, Daiqing Qi, Zeyu He, Yijun Tian, Christopher W. Porter, Megan Coffee, Zhe Zeng, **Sheng Li**, Ziran Wang, Ting-Hao Kenneth Huang, James Matthew Rehg, Henry Kautz, and Aidong Zhang. “The Clever Hans Mirage: A Comprehensive Survey on Spurious Correlations in Machine Learning.” *Transactions on Machine Learning Research (TMLR)*, 2026.
- [J2] Kexin Zhang, Shuhan Liu, Song Wang, Weili Shi, Chen Chen, Pan Li, **Sheng Li**, Jundong Li, and Kaize Ding. “A Survey of Deep Graph Learning under Distribution Shifts: From Graph Out-of-Distribution Generalization to Adaptation”. *ACM Trans. Knowledge Discovery from Data (T-KDD)*, 2026.
- [J3] Huibo Yang, Mengxuan Hu, Amoreena Most, Brian Murray, Susan Smith, Anthony Hawkins, **Sheng Li**, and Andrea Sikora. “Evaluating Accuracy and Reproducibility of Large Language Model Performance on Critical Care Assessments in Pharmacy Education.” *Frontiers in Artificial Intelligence*, 2025.
- [J4] Haixing Dai, Yiwei Li, Zhengliang Liu, Lin Zhao, Zihao Wu, Suhang Song, Ye Shen, Dajiang Zhu, Xiang Li, **Sheng Li**, Xiaobai Yao, Lu Shi, Quanzheng Li, Zhuo Chen, Donglan Zhang, Gengchen Mai, Tianming Liu. “AD-AutoGPT: An Autonomous GPT for Alzheimer’s Disease Infodemiology.” *PLOS Global Public Health*, 2025.
- [J5] Susan Smith, Bokai Zhao, Shiyuan Deng, Mengxuan Hu, Tianyi Zhang, Yanlei Kong, Ye Shen, **Sheng Li**, David Murphy, Brian Murray, Rishikesan Kamaleswaran, Xianyan Chen, John Devlin, and Andrea Sikora. “Machine Learning-based Prediction of ICU Complications Using Medication Data: A Validation Study.” *Critical Care Medicine*, 2025.
- [J6] Andrea Sikora, Wanyi Min, Mengxuan Hu, John W Devlin, David J Murphy, Brian Murray, Bokai Zhao, Ye Shen, Xianyan Chen, Susan E Smith, Sandra Rowe, Tianming Liu, and **Sheng Li**. “Effect of Comprehensive Medication Management on Mortality in Critically Ill Patients.” *Critical Care Medicine*, 2025.
- [J7] Zhengliang Liu, Shaochen Xu, Zihao Wu, Brian Murray, Erin Barreto, Amoreena Most, **Sheng Li**, Wei Liu, Xiang Li, Tianming Liu, and Andrea Sikora. “PharmacyGPT: Exploration of Artificial Intelligence for Medication Management in the Intensive Care Unit”. *BMC Medical Informatics and Decision Making*, 2025.
- [J8] Mengxuan Hu Zihan Guan, Junfeng Guo, Zhongliang Zhou, Jielu Zhang, and **Sheng Li**. “BBCaL: Black-box Backdoor Detection under the Causality Lens.” *Transactions on Machine Learning Research (TMLR)*, 2024. (**Featured Certification**)
- [J9] **Sheng Li**. “Large Pretrained Models for Treatment Effect Estimation: Are We There Yet?” *Patterns*, 2024.
- [J10] Weili Shi and **Sheng Li**. “Dual-windowed Vision Transformer with Angular Self-Attention.” *Transactions on Machine Learning Research (TMLR)*, 2024.
- [J11] Daiqing Qi, Handong Zhao, Xiaowei Jia, and **Sheng Li**. “Revealing an Overlooked Challenge in Class-Incremental Graph Learning.” *Transactions on Machine Learning Research (TMLR)*, 2024.
- [J12] Mengxuan Hu, Zhixuan Chu, and **Sheng Li**. “DTRNet: Precisely Correcting Selection Bias in Individual-Level Continuous Treatment Estimation through Reweighted Disentangled Representation.” *Transactions on Machine Learning Research (TMLR)*, 2024.

- [J13] Ronghang Zhu, Dongliang Guo, Daiqing Qi, Zhixuan Chu, Xiang Yu, and **Sheng Li**. “Trust-worthy Representation Learning Across Domains.” *ACM Trans. Knowledge Discovery from Data (T-KDD)*, 2024.
- [J14] Zhongliang Zhou\*, Wayland Yeung\*, Saber Soleymani, Nathan Gravel, Mariah Salcedo, **Sheng Li**, and Natarajan Kannan. “Using explainable machine learning to uncover the kinase-substrate interaction landscape.” *Bioinformatics*, 2024.
- [J15] Haixing Dai, Zhengliang Liu, Wenxiong Liao, Xiaoke Huang, Zihao Wu, Lin Zhao, Wei Liu, Ninghao Liu, **Sheng Li**, Dajiang Zhu, Hongmin Cai, Quanzheng Li, Dinggang Shen, Tianming Liu, and Xiang Li. “ChatAug: Leveraging ChatGPT for Text Data Augmentation,” *IEEE Transactions on Big Data (T-BD)*, 2024.
- [J16] Saed Rezayi, Zhengliang Liu, Zihao Wu, Chandra Dhakal, Bao Ge, Haixing Dai, Gengchen Mai, Ninghao Liu, Chen Zhen, Tianming Liu, and **Sheng Li**. “Exploring New Frontiers in Agricultural NLP: Investigating the Potential of Large Language Models for Food Applications.” *IEEE Transactions on Big Data (T-BD)*, 2024.
- [J17] Weili Shi, Ronghang Zhu, and **Sheng Li**. “Unsupervised Class-imbalanced Domain Adaptation with Pairwise Adversarial Training and Semantic Alignment.” *IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)*, 2024.
- [J18] Weili Shi and **Sheng Li**. “Mixup Virtual Adversarial Training for Robust Vision Transformers.” *IEEE Transactions on Big Data (T-BD)*, 2024.
- [J19] Daniel Petti, Ronghang Zhu, **Sheng Li**, and Changying Li. “Graph Neural Networks for Lightweight Plant Organ Tracking.” *Computers and Electronics in Agriculture (CEA)*, 2024.
- [J20] Ronghang Zhu, Xiang Yu, and **Sheng Li**. “Semi-Supervised Single Domain Generalization with Label-Free Adversarial Data Augmentation.” *Transactions on Machine Learning Research (TMLR)*, 2023.
- [J21] Zhongliang Zhou\*, Wayland Yeung\*, Nathan Gravel, Mariah Salcedo, Saber Soleymani, **Sheng Li**, and Natarajan Kannan. “Phosformer: An explainable Transformer model for protein kinase-specific phosphorylation predictions.” *Bioinformatics*, 2023.
- [J22] Lin Zhao, Haixing Dai, Zihao Wu, Zhenxiang Xiao, Lu Zhang, David Weizhong Liu, Xintao Hu, Xi Jiang, **Sheng Li**, Dajiang Zhu, and Tianming Liu. “Coupling visual semantics of artificial neural networks and human brain function via synchronized activations.” *IEEE Transactions on Cognitive and Developmental Systems (T-CDS)*, 2023.
- [J23] Shengyu Chen, Nasrin Kalanat, Yiqun Xie, **Sheng Li**, Jacob Zwart, Jeffrey Sadler, Alison Appling, Samantha Oliver, Jordan Read, and Xiaowei Jia. “Physics-Guided Machine Learning from Simulated Data with Different Physical Parameters.” *Knowledge and Information Systems (KAIS)*, 2023.
- [J24] Juliet N. Sekandi, Weili Shi, Ronghang Zhu, Patrick Evans Kaggwa, Ernest Mwebaze, and Sheng Li. “Application of Artificial Intelligence to Monitoring of Medication Adherence for Tuberculosis Treatment in Africa: A Pilot Study.” *Journal of Medical Internet Research (JMIR) AI*, 2023.
- [J25] Xiaojun Wei, Tadas Penkauskas, Joseph E Reiner, Celeste Kennard, Mark J Uline, Qian Wang, **Sheng Li**, Aleksei Aksimentiev, Joseph WF Robertson, and Chang Liu. “Engineering Biological Nanopore Approaches toward Protein Sequencing.” *ACS Nano*, 2023.
- [J26] Lian Zhang, Jason M Holmes, Zhengliang Liu, Sujay A Vora, Terence T Sio, Carlos E Vargas, Nathan Y Yu, Sameer R Keole, Steven E Schild, Martin Bues, **Sheng Li**, Tianming Liu, Jiajian Shen, William W Wong, and Wei Liu. “Beam mask and sliding window-facilitated deep learning-based accurate and efficient dose prediction for pencil beam scanning proton therapy.” *Medical Physics*, 2023.
- [J27] Wayland Yeung\*, Zhongliang Zhou\*, **Sheng Li**, and Natarajan Kannan. “Alignment-free estimation of sequence conservation for identifying functional sites using protein sequence embeddings.” *Briefings in Bioinformatics*, 2022.

- [J28] Wayland Yeung\*, Zhongliang Zhou\*, Liju Mathew, Nathan Gravel, Rahil Taujale, Brady O’Boyle, Mariah Salcedo, Aarya Venkat, William Lanzilotta, **Sheng Li**, and Natarajan Kannan. “Tree Visualizations of Protein Sequence Embedding Space Enable Improved Functional Clustering of Diverse Protein Superfamilies.” *Briefings in Bioinformatics*, 2022.
- [J29] Liuyi Yao, Yaliang Li, **Sheng Li**, Jinduo Liu, Mengdi Huai, Aidong Zhang, and Jing Gao. “Concept-Level Model Interpretation from the Causal Aspect.” *IEEE Trans. Knowledge and Data Engineering (T-KDE)*, 2022. (Accepted)
- [J30] Rahil Taujale\*, Zhongliang Zhou\*, Wayland Yeung, Kelley Moremen, **Sheng Li**, and Natarajan Kannan. “Mapping the glycosyltransferase fold landscape using interpretable deep learning.” *Nature Communications*, 12, 5656, 2021. (\* indicates equal contribution)  
DOI: <https://doi.org/10.1038/s41467-021-25975-9>
- [J31] Heng-Shiou Sheu, Zhixuan Chu, Daiqing Qi, and **Sheng Li**. “Knowledge-Guided Article Embedding Refinement for Session-based News Recommendation”. *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 2021. (In Press)  
DOI: <https://doi.org/10.1109/TNNLS.2021.3084958>
- [J32] Ronghang Zhu, Xiaodong Jiang, Jiasen Lu, and **Sheng Li**. “Cross-Domain Graph Convolutions for Adversarial Unsupervised Domain Adaptation.” *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 2021. (In Press)  
DOI: <https://doi.org/10.1109/TNNLS.2021.3122899>
- [J33] Liuyi Yao, Zhixuan Chu, **Sheng Li**, Yaliang Li, Jing Gao, and Aidong Zhang. “A Survey on Causal Inference”. *ACM Trans. Knowledge Discovery from Data (T-KDD)*, 15(5), 74:1-46, 2021.  
DOI: <https://doi.org/10.1145/3444944>
- [J34] Xiaodong Jiang, Ronghang Zhu, Pengsheng Ji, and **Sheng Li**. “Co-embedding of Nodes and Edges with Graph Neural Networks.” *IEEE Trans. Pattern Analysis and Machine Intelligence (T-PAMI)*, 2020. (In Press)  
DOI: <https://doi.org/10.1109/TPAMI.2020.3029762>
- [J35] Jiahuan Ren, Zhao Zhang, **Sheng Li**, Yang Wang, Guangcan Liu, Shuicheng Yan, and Meng Wang. “Learning Hybrid Representation by Robust Dictionary Learning in Factorized Compressed Space.” *IEEE Trans. Image Processing (T-IP)*, 29:3941-3956, 2020.  
DOI: <https://doi.org/10.1109/TIP.2020.2965289>
- [J36] Rahil Taujale, Aarya Venkat, Liang-Chin Huang, Zhongliang Zhou, Wayland Yeung, Khaled M Rasheed, **Sheng Li**, Arthur S Edison, Kelley W Moremen, Natarajan Kannan. “Deep evolutionary analysis reveals the design principles of fold A glycosyltransferases.” *eLife*, 9:e54532, 2020.  
DOI: <https://doi.org/10.7554/eLife.54532>
- [J37] Liang-Chin Huang, Wayland Yeung, Ye Wang, Huimin Cheng, Aarya Venkat, **Sheng Li**, Ping Ma, Khaled Rasheed, and Natarajan Kannan. “Quantitative Structure–Mutation–Activity Relationship Tests (QSMART) model for protein kinase inhibitor response prediction.” *BMC Bioinformatics*, 21:520, 2020.  
DOI: <https://doi.org/10.1186/s12859-020-03842-6>
- [J38] **Sheng Li**\*, Zhiqiang Tao\*, Kang Li, and Yun Fu. “Visual to Text: Survey of Image and Video Captioning”. *IEEE Trans. Emerging Topics in Computational Intelligence (T-ETCI)*, 3(4):297-312, 2019. (\* indicates equal contribution)  
DOI: <https://doi.org/10.1109/TETCI.2019.2892755>
- [J39] Zhiqiang Tao, Hongfu Liu, **Sheng Li**, Zhengming Ding, and Yun Fu. “Marginalized Multi-View Ensemble Clustering”. *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 31(2):600-611, 2019.  
DOI: <https://doi.org/10.1109/TNNLS.2019.2906867>

- [J40] Kai Li, Zhengming Ding, **Sheng Li**, Yun Fu. “Towards Resolution-Invariant Person Re-identification via Projective Dictionary Learning”. *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 30(6):1896-1907, 2019.  
DOI: <https://doi.org/10.1109/TNNLS.2018.2875429>
- [J41] Zhiqiang Tao, Hongfu Liu, **Sheng Li**, Zhengming Ding, and Yun Fu. “Robust Spectral Ensemble Clustering via Rank Minimization”. *ACM Trans. Knowledge Discovery from Data (T-KDD)*, 13(1):4:1-4:25, 2019.  
DOI: <https://doi.org/10.1145/3278606>
- [J42] Zhao Zhang, Yan Zhang, **Sheng Li**, Guangcan Liu, Shuicheng Yan, and Meng Wang. “Flexible Auto-weighted Local-coordinate Concept Factorization: A Robust Framework for Unsupervised Clustering.” *IEEE Trans. Knowledge and Data Engineering (T-KDE)*, 33(4):1523-1539, 2019.  
DOI: <https://doi.org/10.1109/TKDE.2019.2940576>
- [J43] Zhengming Li, Zheng Zhang, Jie Qin, **Sheng Li**, Hongmin Cai. “Low-Rank Analysis-Synthesis Dictionary Learning with Adaptively Ordinal Locality.” *Neural Networks (NN)*, 119:93-112, 2019.  
DOI: <https://doi.org/10.1016/j.neunet.2019.07.013>
- [J44] Fangyu Li, Jose Clemente, Maria Valero, Zion Tse, **Sheng Li**, WenZhan Song. “Smart Home Monitoring System via Footstep Induced Vibrations.” *IEEE Systems Journal*, 14(3):3383-3389, 2019.  
DOI: <https://doi.org/10.1109/JSYST.2019.2937960>
- [J45] Jianyi Liu, Rui Qiao, Yueying Li, **Sheng Li**. “Witness Detection in Multi-Instance Regression and Its Application for Age Estimation”. *Multimedia Tools and Applications*, 78, 33703-33722, 2019.  
DOI: <https://doi.org/10.1007/s11042-019-08203-x>
- [J46] **Sheng Li**, Ming Shao, and Yun Fu. “Person Re-identification by Cross-View Multi-Level Dictionary Learning”. *IEEE Trans. Pattern Analysis and Machine Intelligence (T-PAMI)*, 40(12):2963-2977, 2018.  
DOI: <https://doi.org/10.1109/TPAMI.2017.2764893>
- [J47] **Sheng Li**, Kang Li, and Yun Fu. “Self-Taught Low-Rank Coding for Visual Learning”. *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 29(3):645-656, 2018.  
DOI: <https://doi.org/10.1109/TNNLS.2016.2633275>
- [J48] **Sheng Li**, Ming Shao, and Yun Fu. “Multi-View Low-Rank Analysis with Applications to Outlier Detection”. *ACM Trans. Knowledge Discovery from Data (T-KDD)*, 12(3), 32:1-32:22, 2018.  
DOI: <https://doi.org/10.1145/3168363>
- [J49] **Sheng Li**, Kang Li, and Yun Fu. “Early Recognition of 3D Human Actions”. *ACM Trans. Multimedia Computing Communications and Applications (TOMM)*, 14(1s): 20:1-20:21, 2018.  
DOI: <https://doi.org/10.1145/3131344>
- [J50] Yan Zhang, Zhao Zhang, **Sheng Li**, Jie Qin, Guangcan Liu, Meng Wang, Shuicheng Yan. “Unsupervised Nonnegative Adaptive Feature Extraction for Data Representation”. *IEEE Trans. Knowledge and Data Engineering (T-KDE)*, 31(12):2423-2440, 2018.  
DOI: <https://doi.org/10.1109/TKDE.2018.2877746>
- [J51] Chengcheng Jia, Ming Shao, **Sheng Li**, Handong Zhao, and Yun Fu. “Stacked Denoising Tensor Auto-Encoder for Action Recognition with Spatiotemporal Corruptions”. *IEEE Trans. Image Processing (T-IP)*, 27(4):1878-1887, 2018.  
DOI: <https://doi.org/10.1109/TIP.2017.2781299>
- [J52] Guoqiang Zhong, Yan Zheng, **Sheng Li**, Yun Fu. “SLMOML: Online Metric Learning with Global Convergence”. *IEEE Trans. Circuits System for Video Technology (T-CSVT)*, 28(10):2460-2472, 2018.  
DOI: <https://doi.org/10.1109/TCSVT.2017.2726526>

- [J53] Hongfu Liu, Ming Shao, **Sheng Li**, Yun Fu. "Infinite Ensemble Clustering". *Data Mining and Knowledge Discovery (DMKD)*, 32(2):385-416, 2018.  
DOI: <https://doi.org/10.1007/s10618-017-0539-5>
- [J54] Kang Li, **Sheng Li**, Sangmin Oh, and Yun Fu. "Videography based Unconstrained Video Analysis". *IEEE Trans. Image Processing (T-IP)*, 26(5):2261-2273, 2017.  
DOI: <https://doi.org/10.1109/TIP.2017.2678800>
- [J55] **Sheng Li** and Yun Fu. "Learning Robust and Discriminative Subspace with Low-Rank Constraints". *IEEE Trans. Neural Networks and Learning Systems (T-NNLS)*, 27(11):2160-2173, 2016.  
DOI: <https://doi.org/10.1109/TNNLS.2015.2464090>
- [J56] **Sheng Li** and Yun Fu. "Learning Balanced and Unbalanced Graphs via Low-Rank Coding". *IEEE Trans. Knowledge and Data Engineering (T-KDE)*, 27(5):1274-1287, 2015.  
DOI: <https://doi.org/10.1109/TNNLS.2015.2464090>
- [J57] Ya Su, **Sheng Li**, Shengjin Wang, and Yun Fu. "Submanifold Decomposition". *IEEE Trans. Circuits System for Video Technology (T-CSVT)*, 24(11):1885-1897, 2014.  
DOI: <https://doi.org/10.1109/TCSVT.2014.2329375>
- [J58] **Sheng Li\***, Liang-Yue Li\* and Yun Fu. "Learning Low-Rank and Discriminative Dictionary for Image Classification". *Image and Vision Computing (IVC)*, 32(10):814-823, 2014. (\* indicates equal contributions).  
DOI: <https://doi.org/10.1016/j.imavis.2014.02.007>
- [J59] Xiaoyuan Jing, **Sheng Li**, David Zhang, Jian Yang, and Jingyu Yang. "Supervised and Unsupervised Parallel Subspace Learning for Large-Scale Image Recognition". *IEEE Trans. Circuits System for Video Technology (T-CSVT)*, 22(10):1497-1511, 2012.  
DOI: <https://doi.org/10.1109/TCSVT.2012.2202079>
- [J60] Xiaoyuan Jing, **Sheng Li**, David Zhang, Yongfang Yao, Chao Lan, Jiasen Lu, and Jingyu Yang. "Optimal Subset-Division based Discrimination and Its Kernelization for Face and Palmprint Recognition", *Pattern Recognition (PR)*, 45(10):3590-3602, 2012.  
DOI: <https://doi.org/10.1016/j.patcog.2012.04.001>
- [J61] Xiaoyuan Jing, **Sheng Li**, Wenqian Li, Yongfang Yao, Chao Lan, Jiasen Lu, and Jingyu Yang. "Palmprint and Face Multi-Modal Biometric Recognition Based on SDA-GSVD and Its Kernelization". *Sensors*, vol. 12, no. 5, pp. 5551-5571, 2012.  
DOI: <https://doi.org/10.3390/s120505551>
- [J62] Xiaoyuan Jing, Chao Lan, David Zhang, Jingyu Yang, Min Li, **Sheng Li**, Songhao Zhu. "Face Feature Extraction and Recognition based on Discriminant Subclass-center Manifold Preserving Projection". *Pattern Recognition Letters (PRL)*, vol. 33, no. 6, pp. 709-717, 2012.  
DOI: <https://doi.org/10.1016/j.patrec.2012.01.001>
- [J63] Xiaoyuan Jing, **Sheng Li**, Chao Lan, David Zhang, Jingyu Yang, and Qian Liu. "Color Image Canonical Correlation Analysis for Face Feature Extraction and Recognition", *Signal Processing (SP)*, vol. 91, no. 8, pp. 2132-2140, 2011.  
DOI: <https://doi.org/10.1016/j.sigpro.2011.02.016>
- [J64] **Sheng Li**, Xiaoyuan Jing, Lusha Bian, Shiqiang Gao, Qian Liu, and Yongfang Yao. "Facial Image Recognition based on a Statistical Uncorrelated Near Class Discriminant Approach", *IEICE Trans. on Information & Systems*, Vol. E93-D, No.4, pp. 934-937, Apr. 2010.  
DOI: <https://doi.org/10.1587/transinf.E93.D.934>
- [J65] **Sheng Li**, Yongfang Yao, Xiaoyuan Jing, Heng Chang, Shiqiang Gao, David Zhang, Jingyu Yang. "Face Recognition based on Nonlinear DCT Discriminant Feature Extraction using Improved Kernel DCV", *IEICE Trans. on Information & Systems*, Vol. E92-D, No.12, Dec. 2009.  
DOI: <https://doi.org/10.1587/transinf.E92.D.2527>

#### • BOOK CHAPTERS

- [P1] Kang Li, **Sheng Li** and Yun Fu. Time Series Modeling for Activity Prediction. *Human Activity Recognition and Prediction*, Springer, 2016.  
Views & Downloads: 1,244  
DOI: [https://doi.org/10.1007/978-3-319-27004-3\\_8](https://doi.org/10.1007/978-3-319-27004-3_8)
- [P2] **Sheng Li**, Liangyue Li and Yun Fu. Low-Rank and Sparse Dictionary Learning. *Low-Rank and Sparse Modeling for Visual Analysis*, Springer, 2014.  
Views & Downloads: 2,220  
DOI: [https://doi.org/10.1007/978-3-319-12000-3\\_4](https://doi.org/10.1007/978-3-319-12000-3_4)
- [P3] **Sheng Li**, Ming Shao and Yun Fu. Low-Rank Outlier Detection. *Low-Rank and Sparse Modeling for Visual Analysis*, Springer, 2014.  
Views & Downloads: 1,889  
DOI: [https://doi.org/10.1007/978-3-319-12000-3\\_9](https://doi.org/10.1007/978-3-319-12000-3_9)

## PATENTS

- *Interpretable user modeling from unstructured user data*  
Handong Zhao, Zhiqiang Tao, Zhaowen Wang, **Sheng Li**, Chen Fang  
US Patent 11,381,651, 2022
- *Generating scene graphs from digital images using external knowledge and image reconstruction*  
Handong Zhao, Zhe Lin, **Sheng Li**, Mingyang Ling, Jiuxiang Gu  
US Patent 11,373,390, 2022
- *Adversarial Training for Event Sequence Analysis*  
Xiaowei Jia, **Sheng Li**, Handong Zhao, Sungchul Kim  
US Patent 11,507,878, 2022
- *Multi-task Equidistant Embedding*  
Handong Zhao, Zheng Wen, Sungchul Kim, **Sheng Li**, Branislav Kveton  
US Patent: US20200167690A1. Filed: 11/28/2018
- *Predicting Counterfactuals by Utilizing Balanced Nonlinear Representations for Matching Models*  
**Sheng Li**  
US Patent: US20200097997A1. Filed: 09/21/2018
- *Online training and update of factorization machines using alternating least squares optimization*  
Saayan Mitra, Xueyu Mao, Viswanathan Swaminathan, Somdeb Sarkhel, **Sheng Li**  
US Patent 11,049,041, 2021
- *Generating and Utilizing Classification and Query-specific Models to Generate Digital Responses to Queries from Client Device*  
Tuan Manh Lai, Trung Bui, **Sheng Li**, Quan Hung Tran, Hung Bui  
US Patent: 11,776,036, 2023.
- *Campaign Effectiveness Determination using Dimension Reduction*  
**Sheng Li**, Nikolaos Vlassis, Jaya Kawale  
US Patent: US20170140417A1. Filed: 11/12/2015.
- *Item Recommendation via Deep Collaborative Filtering*  
**Sheng Li**, Jaya Kawale  
US Patent: US10255628B2. Filed: 11/05/2015. Granted: 04/09/2019
- *Temporal Dynamics in Display Advertising*  
Jaya Kawale, **Sheng Li**  
US Patent: US20160148253A1. Filed: 11/25/2014.

## TEACHING EXPERIENCE

- **DS 6200 Computation I** (6 Graduate Students)  
Instructor  
Fall 2025  
University of Virginia
- **DS 6050 Deep Learning** (69 Graduate Students)  
Instructor  
Spring 2025  
University of Virginia
- **DS 6200 Computation I** (6 Graduate Students)  
Instructor  
Fall 2024  
University of Virginia

- **DS 6050 Deep Learning** (65 Graduate Students) Spring 2024  
Instructor University of Virginia
- **DS 6200 Computation I** (5 Graduate Students) Fall 2023  
Instructor University of Virginia
- **DS 6050 Deep Learning** (62 Graduate Students) Spring 2023  
Instructor University of Virginia
- **CSCI 3360 Data Science I** (37 Undergraduate Students) Spring 2022  
Instructor University of Georgia  
Teaching Evaluation Score: 4.25 / 5
- **CSCI 8945 Advanced Representation Learning** (35 PhD/MS students) Fall 2021  
Instructor University of Georgia  
Teaching Evaluation Score: 4.57 / 5
- **CSCI 3360 Data Science I** (52 Undergraduate Students) Spring 2021  
Instructor University of Georgia  
Teaching Evaluation Score: 4.23 / 5
- **CSCI 8945 Advanced Representation Learning** (30 PhD/MS students) Fall 2020  
Instructor University of Georgia  
Teaching Evaluation Score: 4.63 / 5
- **CSCI 8950 Machine Learning** (35 PhD/MS students) Spring 2020  
Instructor University of Georgia  
Teaching Evaluation Score: 4.41 / 5
- **CSCI 8945 Advanced Representation Learning** (45 PhD/MS students) Fall 2019  
Instructor University of Georgia  
Teaching Evaluation Score: 4.48 / 5
- **CSCI 3360 Data Science I** (48 Undergraduate Students) Spring 2019  
Instructor University of Georgia  
Teaching Evaluation Score: 4.35 / 5
- **CSCI 8000 Advanced Topics in Machine Learning** (27 Students) Fall 2018  
Instructor University of Georgia  
Teaching Evaluation Score: 4.32 / 5

## MENTORING

### Current PhD Students

- Daiqing Qi (Fall 2021 - ), Expected Defense: Spring 2026
- Weili Shi (Fall 2021 - ), Expected Defense: Spring 2026
- Dongliang Guo (Fall 2021 - ), Expected Defense: Spring 2026
- Mengxuan Hu (Fall 2022 - ), Expected Defense: Summer 2026
- Guangya Wan (Fall 2023 - ), Expected Defense: Spring 2028
- Hanzhang Yuan (Fall 2023 - ), Expected Defense: Spring 2028
- Lehan Yang (Fall 2024 - ), Expected Defense: Spring 2029
- Ethan Wang (Fall 2024 - ), Expected Defense: Spring 2029
- Wenhao Zhang (Fall 2025 - ), Expected Defense: Spring 2030
- Pinqiao Wang (Fall 2025 - ), Expected Defense: Spring 2030

### Current Undergraduate Students

- Anaya Pronit Nath (Fall 2024 - ), BS in Data Science
- Yifan Qiao (Spring 2025 - ), BS in Statistics
- Enhui Li (Summer 2025 - ), BS in Computer Science

### Previous PhD Students

- Zhixuan Chu (Fall 2018 - Spring 2021), PhD in Biostatistics (Co-advised with Dr. Stephen Rathbun), MS in CS.  
Achievements: 8 journal/conference papers at ACM TKDD, IEEE TNNLS, ACM SIGKDD, ACM CIKM, SIAM, CHIL, etc.  
First employment: Senior Algorithm Engineer, Ant Group, China  
Current position: Associate Professor, Zhejiang University, China
- Seyedsaied Rezayidemne (Fall 2018 - Spring 2023), PhD in Computer Science  
Achievements: 8 conference papers at IJCAI, AAAI, NAACL, SDM, IEEE BigData, WACV, IEEE MIPR, etc.  
Current position: NLP Research Scientist, NBME
- Yu Wang (Fall 2019 - Spring 2023), PhD in Statistics, Co-advised with Prof. P. Ji.  
Current position: Machine Learning Engineer, LinkedIn
- Zhongliang Zhou (Spring 2020 - Spring 2024), PhD in Computer Science  
Achievements: 10+ papers at Nature Communications, Bioinformatics, BiB, AAAI, IEEE BigData, eLife, etc.  
Current position: Senior Research Scientist, Merck
- Zhanwen Chen (Fall 2021 - Spring 2024)
- Ronghang Zhu (Fall 2019 - Spring 2025), PhD in Computer Science  
Achievements: 15+ papers at IEEE TPAMI/TNNLS/TCSVT, ACM TKDD, TMLR, ICLR, KDD, AAAI, ICDM, SDM, etc.  
Current position: Applied Scientist, Amazon

#### **Graduated Master Students**

- Huibo Yang (Fall 2023 - Fall 2024), MS in CS, UVA
- Tongxuan Tian (Fall 2023 - Fall 2024), MS in CS, UVA
- Yangjiaxin Wei (Spring 2022 - Fall 2023), MS in CS, UGA
- Zhaiming Shen (Spring 2022 - Spring 2023), MS in CS, UGA
- Kushajveer Singh (Spring 2021 - Summer 2022), MS in CS, UGA
- Junwen Fan (Fall 2021 - Summer 2022), MS in CS, UGA
- Akarsh Vasudeva Hebbar (Summer 2021 - Fall 2021), MS in CS, UGA
- Mitchell Buff (Summer 2021 - Fall 2021), MS in CS, UGA
- Kranthimithra Rayapraju (Spring 2021 - Fall 2021), MS in CS, UGA
- Weifeng Wang (Fall 2019 - Spring 2021), MS in CS, Ph.D. in Statistics, UGA
- Weili Shi (Spring 2020 - Spring 2021), MS in CS, UGA. Now PhD student at UGA
- Yuanyi Zhang (Spring 2020 - Spring 2021), MS in CS, UGA
- Matthew P. Pooser (Fall 2020 - Spring 2021), MS in CS, UGA. Now at CDC.
- Daksha Devasthale (Fall 2020 - Spring 2021), MS in CS, UGA. Now at NCR Corporation.
- Brij Rokad (Spring 2020 - Fall 2020), MS in AI, UGA. Now at NCR Corporation.
- Abhilash Dorle (Spring 2019 - Summer 2020), MS in CS, UGA. Now at NCR Corporation.
- Sumer Singh (Spring 2020 - Summer 2020), MS in AI, UGA. Now at TeleTracking.
- Heng-Shiou Sheu (Fall 2019 - Spring 2020), MS in CS, UGA. Now at Turing Text.
- Jiankun Zhu (2018 - 2019), MS in CS, UGA
- Xiaodong Jiang (2018 - 2019), MS in CS, UGA; Ph.D. in Statistics. Now at Meta.
- Kang Yuan (2018 - 2019), MS in AI, UGA

#### **Undergraduate Students**

- Andrew H. Burns (Spring 2021), BS in CS, UGA
- Masthan Shaik (Fall 2020), BS in CS, UGA

- Matthew Perez Pooser (Fall 2019), BS in CS, UGA
- Daiqing Qi (Fall 2019), BS in EE, SEU
- Jason Fan (Spring - Fall 2019), BS in CS, UGA
- Beier Zhu (Spring 2019), BS in MIS, UGA

#### **K-12 Students**

- Sabrina Bradshaw (Fall 2020), Young Dawgs Program, Oconee County High School, GA

#### **PhD Thesis Committees (UVA)**

- Nan Wang (2022 - 2023), CS Ph.D. Thesis Committee, UVA
- Jing Ma (2022 - 2023), CS Ph.D. Thesis Committee, UVA
- Jianhui Sun (2022 - now), CS Ph.D. Thesis Committee, UVA
- Anshuman Suri (2022 - now), CS Ph.D. Thesis Committee, UVA
- Jason Wang (2022 - now), DS Ph.D. Thesis Committee, UVA
- Zhendong Chu (2023 - now), CS Ph.D. Thesis Committee, UVA
- Joseph Choi (2023 - now), DS Ph.D. Thesis Committee, UVA
- Jack Thomas Beerman (2024 - now), DS Ph.D. Thesis Committee, UVA
- Bryan Christ (2024 - now), DS Ph.D. Thesis Committee, UVA
- Zihan Guan (2025 - now), CS Ph.D. Thesis Committee, UVA
- Zhaoyuan Su (2025 - now), CS Ph.D. Thesis Committee, UVA
- Chen Gong (2025 - now), CS Ph.D. Thesis Committee, UVA
- Dane Williamson (2025 - now), CS Ph.D. Thesis Committee, UVA
- Wenqian Ye (2025 - now), CS Ph.D. Thesis Committee, UVA
- Olivia Shen (2025 - now), SIE Ph.D. Thesis Committee, UVA
- Clarence Williams (2025 - now), DS Ph.D. Thesis Committee, UVA
- Zoë Gray (2025 - now), DS Ph.D. Thesis Committee, UVA
- Miles Zhou (2025 - now), DS Ph.D. Thesis Committee, UVA

#### **PhD Thesis Committees (UGA)**

- Bahaaeddin M M Alaila (2019 - now), CS Ph.D. Thesis Committee, UGA
- Abolfazl Farahani (2019 - 2023), CS Ph.D. Thesis Committee, UGA
- Zhizhong Lin (2019 - 2022), Statistics Ph.D. Thesis Committee, UGA
- Marcus Hill (2020 - 2022), CS Ph.D. Thesis Committee, UGA
- Haixing Dai (2020 - 2023), CS Ph.D. Thesis Committee, UGA
- Abdulkarim Kushk (2020 - 2023), CS Ph.D. Thesis Committee, UGA
- Samiyuru Senarathne (2020 - 2023), CS Ph.D. Thesis Committee, UGA
- Tsunghan Han (2020 - 2023), ECE Ph.D. Thesis Committee, UGA
- Yangjiixin Wei (2020 - 2023), Geography Ph.D. Thesis Committee, UGA
- Ruowei Liu (2020 - 2023), Geography Ph.D. Thesis Committee, UGA
- Jiawei Xiong (2020 - 2023), Educational Psychology Ph.D. Thesis Committee, UGA
- Abdulrahman Gharawi (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Farah Saeed (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Md. Redwan Islam (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Elika Bozorgi (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Duna Zhan (2021 - 2023), Statistics Ph.D. Thesis Committee, UGA

- Hemadri Jayalath (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Zirah Khan (2021 - 2023), CS Ph.D. Thesis Committee, UGA
- Lin Zhao (2022 - 2023), CS Ph.D. Thesis Committee, UGA
- Wayland Yeung (2020 - 2022), Bioinformatics Ph.D. Thesis Committee, UGA
- Zhengliang Liu (2022 - now), CS Ph.D. Thesis Committee, UGA
- Zihao Wu (2022 - 2025), CS Ph.D. Thesis Committee, UGA

#### **PhD Thesis Committees (External)**

- Yizhou Wang, CE Ph.D. Thesis Committee, Northeastern University
- Yitian Zhang, CE Ph.D. Thesis Committee, Northeastern University

#### **MS Thesis Committees**

- Xingchen Jian (2019), CS MS Thesis Committee
- Hari Teja Tatavarti (2019 - 2020), AI MS Thesis Committee
- Jiaojiao Wang (2020), AI MS Thesis Committee
- Jayant Parashar (2020), AI MS Thesis Committee
- Aashish Yadavally (2020), AI MS Thesis Committee
- Kadriye Turkyilmaz (2020 - 2021), CS MS Thesis Committee
- Akarsh V Hebbar (2020 - 2021), CS MS Thesis Committee
- Anagha Joshi (2021), CS MS Thesis Committee
- Kaustubh Rajendra Rajput (2021 - 2022), CS MS Thesis Committee
- Ravi Jyani (2021 - 2022), CS MS Thesis Committee
- Tangrui Li (2021 - 2022), AI MS Thesis Committee
- Sushanth Kathirvelu (2021), CS MS Thesis Committee
- Sabri Monaf Sabri (2021), AI MS Thesis Committee
- Neelima Pulagam (2021), CS MS Thesis Committee

#### **Students Achievements**

- Ronghang Zhu, 2nd Place, UGA CS Day Poster Competition, 2019
- Seyedsaed Rezayidemne, 3rd Place, UGA CS Day Poster Competition, 2019
- Ronghang Zhu, ACM SIGIR Student Travel Award, 2021
- Ronghang Zhu, IEEE ICDM Student Travel Award, 2021
- Ronghang Zhu, CS Outstanding Graduate Student Award, 2021
- Seyedsaed Rezayidemne, CS Outstanding Graduate Student Award, 2021
- Seyedsaed Rezayidemne, IEEE BigData Student Travel Award, 2021
- Ronghang Zhu, SDM Student Travel Award, 2022
- Seyedsaed Rezayidemne, IJCAI Student Travel Award, 2022
- Zhongliang Zhou, CS Outstanding Graduate Student Award, 2022
- Zhongliang Zhou, Best PhD Dissertation Award, 2024
- Mengxuan Hu, AAAI Student Scholar Award, 2024
- Dongliang Guo, NSF SDM Student Travel Award, 2024
- Mengxuan Hu, ACM SIGIR Student Travel Award, 2024
- Mengxuan Hu, AAAI Student Scholar Award, 2025

#### **Interns at Adobe Research**

- Xueyu Mao, PhD Student, University of Texas at Austin, Co-advised on the internship project “Streaming Recommender System”, Summer 2017
- Xiang Chen, PhD Student, National University of Singapore, Co-advised on the internship project “Content Matching for Video Advertising”, Fall 2017
- Handong Zhao, PhD Student, Northeastern University, Advised on the internship project “Deep User Profile”, Fall 2017
- Rui Shu, PhD Student, Stanford University, Advised on the internship project “Deep Un-supervised Domain Adaptation”, Fall 2017
- Tuan Lai, PhD Student, Purdue University, Advised on the internship project “Neural Ranking Models for Question Answering”, Spring 2018
- Donghyun Kim, PhD, POSTECH, Co-advised on the internship project “Domain-aware User Behavior Prediction using RNN”, Spring 2018
- Zhiqiang Tao, PhD Student, Northeastern University, Advised on the internship project “Interpretable User Modeling via Sequence-to-Sequence Embedding”, Summer 2018
- Xiaowei Jia, PhD Student, University of Minnesota Twin Cities, Advised on the internship project “Adversarial Learning for Event Sequence Analysis”, Summer 2018
- Ekta Gujral, PhD Student, University of California, Riverside, Co-advised on the internship project “Community Detection and POI Recommendation”, Summer 2018
- Jiuxiang Gu, PhD Student, National University of Singapore, Co-advised on the internship project “Knowledge Guided Scene Graph Construction”, Summer 2018

## INVITED TALKS

- *Towards Trustworthy Reasoning with Large Foundation Models*  
Invited Talk, Microsoft Oct. 2025
- *Causality for Trustworthy Artificial Intelligence*  
Plenary Talk, 7th Int’l Conference on Statistics: Theory and Applications Aug. 2025
- *Trustworthy Artificial Intelligence for Automatic Item Generation and Assessment*  
Invited Talk, ATP Innovations in Testing Conference, Orlando, FL Mar. 2025
- *Trustworthy AI Meets Educational Assessment: Challenges and Opportunities*  
Invited Talk, Senior Member Presentation Track at AAAI, Philadelphia, PA Feb. 2025
- *Causal Inference Meets Trustworthy AI*  
Keynote Talk, The 3rd Bridge Program on Continual Causality at AAAI Feb. 2025
- *Fairness in Machine Learning*  
Guest Lecture, Data and Society Course, UVA Nov. 2024
- *Generalizing Models to Unseen Domains and Open Environments*  
Invited Talk, AIML Seminar, UVA Nov. 2024
- *Towards Trustworthy Representation Learning*  
Invited Talk, Nanjing University of Posts & Telecommunications, China Aug. 2024
- *Machine Learning Meets Causal Inference*  
Invited Talk, SAP Inspiration Sessions , Jan. 2024
- *Physics-Guided Graph Neural Networks for Modeling River Networks*  
Invited Talk, Datapalooza 2023, UVA Nov. 2023
- *Deep Learning and Protein Language Models: Foundations and Challenges*  
Invited Talk, IOB Symposium, UGA, Oct. 2023
- *Recent Advances in Deep Learning*  
Guest Lecture of DS 1000, Foundations of Data Science, UVA April 2023
- *Trustworthy Representation Learning Across Domains*  
Department of Statistics, University of Virginia, Charlottesville, VA Sept. 2022
- *Machine Learning Meets Causal Inference*  
Harvard Medical School, MA Oct. 2022

- *Towards Trustworthy Representation Learning*  
Keynote Talk, The Workshop on Data Science and Artificial Intelligence for Responsible Recommendations (DS4RRS) Workshop (at KDD-2022) Aug. 2022
- *Knowledge-Guided Graph Representation Learning*  
Invited Talk, The 4th International Conference on Big Data Engineering May 2022
- *Knowledge-Guided Graph Representation Learning*  
Keynote Talk, The 3rd CML-IOT Workshop (at IJCAI-2021) Aug. 2021
- *Recent Advances in Deep Representation Learning*  
Department of Animal and Dairy Science, University of Georgia, Athens, GA Apr. 2021
- *Knowledge-Guided Graph Representation Learning*  
Institute of Bioinformatics, University of Georgia, Athens, GA Feb. 2021
- *Knowledge-Guided Graph Representation Learning*  
Department of Statistics, University of Georgia, Athens, GA Dec. 2020
- *Machine Learning Meets Causal Inference*  
Keynote Talk, Neural Computing and Applications Conference Jul. 2020
- *Machine Learning Meets Causal Inference*  
IEEE CS Atlanta Section Jul. 2020
- *An Overview of Deep Learning*  
Guest Lecture of CSCI 4550/6550, University of Georgia, Athens, GA Dec. 2019
- *Knowledge Guided Representation Learning on Graphs*  
Adobe Data Science Symposium July. 2019
- *An Introduction to Machine Learning*  
College of Education, The University of Iowa, IA Apr. 2019
- *An Overview of Deep Learning*  
Guest Lecture of CSCI 4720, University of Georgia, Athens, GA Feb. 2019
- *Deep Representation Learning for Sequential Data*  
Kennesaw State University, Kennesaw, GA Jan. 2019
- *An Overview of Deep Learning*  
Guest Lecture of CSCI 4550/6550, University of Georgia, Athens, GA Nov. 2018
- *An Overview of Machine Learning*  
Guest Lecture of CSCI 4530/6530, University of Georgia, Athens, GA Oct. 2018
- *Adversarial Training for Sequential Data*  
Institute for Artificial Intelligence, University of Georgia, Athens, GA Oct. 2018
- *Adversarial Training for Sequential Data*  
DELUG, University of Georgia, Athens, GA Oct. 2018
- *Representation Learning for Data Analytics and Knowledge Inference*  
Dept. of ECE, University of Georgia, Athens, GA Oct. 2018
- *An Overview of Machine Learning and Deep Learning*  
Legal Department, Adobe Systems Inc., San Jose, CA Mar. 2018
- *Learning Robust Representations for Data Analytics*  
ECE Seminar, University of Miami, FL May 2017  
CIS Seminar, Temple University, PA Nov. 2016  
Yahoo!-DAIS Seminar, University of Illinois at Urbana-Champaign, IL Oct. 2016  
CS Seminar, University of Minnesota Twin Cities, MN Oct. 2016
- *Robust Representations for Data Analytics and Knowledge Inference*  
Adobe Research, San Jose, CA Nov. 2016
- *Low-Rank and Sparse Modeling for Visual Analytics*  
IFP Seminar, University of Illinois at Urbana-Champaign, IL Sept. 2016
- *Temporal Subspace Clustering for Human Motion Segmentation*  
New England Computer Vision Workshop, UMass Amherst, MA Nov. 2015

- *Learning with Robust Data Representations: Methodologies and Applications*  
NEPSSS, Northeastern University, Boston, MA 2015
- *Rethinking Campaign: A Causal Inference Approach*  
Adobe Research, San Jose, CA 2015
- *Predicting User Behaviors with Collaborative Filtering*  
Adobe Research, San Jose, CA 2014
- *Low-Rank Balanced Graph for Semi-supervised Learning*  
CDSP Workshop, Northeastern University, Boston, MA 2014
- *Color Image Canonical Correlation Analysis for Face Recognition*  
Hohai University, Nanjing, China 2012
- *Divide-and-Conquer based Discriminant Analysis*  
Harbin Institute of Technology Shenzhen Graduate School, China 2011

## PROFESSIONAL ACTIVITIES

### • Panelist

- ★ National Science Foundation (NSF)
  - \* National Artificial Intelligence (NAI) Research Institutes
  - \* Information Integration and Informatics (III)
  - \* Robust Intelligence (RI)
  - \* Office of Advanced Cyberinfrastructure (OAC)
  - \* CISE Research Initiation Initiative (CRII)
  - \* Graduate Research Fellowships Program (GRFP)
- ★ Centers for Disease Control and Prevention (CDC)
- ★ Natural Sciences and Engineering Research Council of Canada (NSERC)
- ★ Qatar Research, Development, and Innovation (QRDI)

### • Senior Area Editor

- ★ IEEE Trans. Circuits and Systems for Video Technology (**T-CSVT**) 2025 - Present

### • Associate Editor

- ★ Transactions on Machine Learning Research (**TMLR**) 2024 - Present
- ★ IEEE Trans. Neural Networks and Learning Systems (**T-NNLS**) 2022 - Present
- ★ IEEE Trans. Cognitive and Developmental Systems (**T-CDS**) 2023 - Present
- ★ IEEE Trans. Consumer Electronics (**T-CE**) 2024 - Present
- ★ IEEE Computational Intelligence Magazine (**CIM**) 2019 - 2025
- ★ IEEE Trans. Circuits and Systems for Video Technology (**T-CSVT**) 2021 - 2024
- ★ SPIE Journal of Electronic Imaging (**JEI**) 2018 - 2022
- ★ Neurocomputing 2017 - 2022
- ★ IET Image Processing (**IPR**) 2017 - 2020

### • Editorial Board Member

- ★ Frontiers in Signal Processing 2021 - 2024
- ★ Neural Computing and Applications (**NCAA**) 2017 - 2023

### • Guest Editor

- ★ Image and Vision Computing (**IVC**) 2020 - 2021  
Special Issue on Deep Cross-Media Neural Model for Generating Image Descriptions
- ★ Neurocomputing 2020 - 2021  
Special Issue on Deep Dictionary Learning: Algorithm, Theory and Application

- ★ Journal of Visual Communication and Image Representation (**JVCI**) 2020 - 2021  
Special Issue on Deep Low-Rank and Sparse Analytics for Robust Visual Intelligence
- **Program Chair**
  - ★ IEEE 12th Int'l Workshop on Analysis and Modeling of Face and Gestures 2025  
in Conjunction with ICCV
  - ★ International Workshop on AI for Children: Healthcare, Psychology, Education 2025  
in Conjunction with ICLR
  - ★ The First Workshop on Large Foundation Models for Educational Assessment 2024  
in Conjunction with NeurIPS
  - ★ IEEE 12th Int'l Workshop on Analysis and Modeling of Face and Gestures 2023  
in Conjunction with ICCV
  - ★ IEEE 11th Int'l Workshop on Analysis and Modeling of Face and Gestures 2021  
in Conjunction with ICCV
  - ★ IEEE 10th Int'l Workshop on Analysis and Modeling of Face and Gestures 2021  
in Conjunction with CVPR
  - ★ The Second International Workshop on Bringing Semantic Knowledge into Vision and Text Understanding 2020  
in Conjunction with IJCAI
  - ★ The First International Workshop on Bringing Semantic Knowledge into Vision and Text Understanding 2019  
in Conjunction with IJCAI
  - ★ IEEE 9th Int'l Workshop on Analysis and Modeling of Face and Gestures 2019  
in Conjunction with CVPR
- **Publicity Chair**
  - ★ IEEE 7th Int'l Workshop on Analysis and Modeling of Face and Gestures 2017  
in Conjunction with ICCV
  - ★ IEEE 15th Int'l Conference on Machine Learning and Applications (**ICMLA**) 2016
  - ★ Workshop on Textual Customer Feedback Mining and Transfer Learning 2016  
in Conjunction with IEEE International Conference on Big Data (**BigData**)
  - ★ IEEE 6th Int'l Workshop on Analysis and Modeling of Face and Gestures 2015  
in Conjunction with CVPR
- **Tutorial Co-Chair**
  - ★ SIAM International Conference on Data Mining (**SDM**) 2023
- **Special Session Chair**
  - ★ IEEE Visual Communications and Image Processing Conference (**VCIP**) 2017  
Special Session: *Regularization Tech. for High-Dim. Visual Data Processing*
- **Area Chair**
  - ★ International Conference on Machine Learning (**ICML**) 2026
  - ★ International Conference on Learning Representations (**ICLR**) 2026
  - ★ ACL Rolling Review (**ARR**) 2025
  - ★ The Annual Conference on Neural Information Processing Systems (**NeurIPS**) 2025
  - ★ International Conference on Machine Learning (**ICML**) 2025
  - ★ International Joint Conference on Artificial Intelligence (**IJCAI**) 2025
  - ★ International Conference on Learning Representations (**ICLR**) 2025
  - ★ SIAM International Conference on Data Mining (**SDM**) 2025
  - ★ The Annual Conference on Neural Information Processing Systems (**NeurIPS**) 2024

|                                                                                           |      |
|-------------------------------------------------------------------------------------------|------|
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2024 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2024 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2024 |
| ★ SIAM International Conference on Data Mining ( <b>SDM</b> )                             | 2024 |
| ★ The Annual Conference on Neural Information Processing Systems ( <b>NeurIPS</b> )       | 2023 |
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2023 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2023 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2023 |
| ★ SIAM International Conference on Data Mining ( <b>SDM</b> )                             | 2023 |
| ★ The Annual Conference on Neural Information Processing Systems ( <b>NeurIPS</b> )       | 2022 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2022 |
| ★ International Conference on Pattern Recognition ( <b>ICPR</b> )                         | 2020 |
| ★ International Conf. Neural Computing for Advanced Applications ( <b>NCAA</b> )          | 2020 |
| ● <b>Senior Program Committee</b>                                                         |      |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2024 |
| ★ Pacific-Asia Conf. on Knowledge Discovery and Data Mining ( <b>PAKDD</b> )              | 2024 |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2022 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2021 |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2021 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2020 |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2020 |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2019 |
| ● <b>Program Committee</b>                                                                |      |
| ★ IEEE International Conference on Data Mining (ICDM) BlueSky Track                       | 2025 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> ) Survey Track | 2025 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> ) Survey Track | 2024 |
| ★ IEEE/CVF Conference on Computer Vision and Pattern Recognition ( <b>CVPR</b> )          | 2023 |
| ★ IEEE/CVF International Conference on Computer Vision ( <b>ICCV</b> )                    | 2023 |
| ★ IEEE/CVF Winter Conference on Applications of Computer Vision ( <b>WACV</b> )           | 2023 |
| ★ The Int'l Conf. Empirical Methods in Natural Language Processing ( <b>EMNLP</b> )       | 2023 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> ) Survey Track | 2023 |
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2022 |
| ★ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining ( <b>KDD</b> )                  | 2022 |
| ★ IEEE/CVF Conference on Computer Vision and Pattern Recognition ( <b>CVPR</b> )          | 2022 |
| ★ The Int'l Conf. Empirical Methods in Natural Language Processing ( <b>EMNLP</b> )       | 2022 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> ) Survey Track | 2022 |
| ★ IEEE International Conference on Big Data ( <b>BigData</b> )                            | 2022 |
| ★ The European Conference on Computer Vision ( <b>ECCV</b> )                              | 2022 |
| ★ The 6th Workshop on Online Abuse and Harms ( <b>WOAH</b> )                              | 2022 |
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2021 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2021 |
| ★ IEEE/CVF Conference on Computer Vision and Pattern Recognition ( <b>CVPR</b> )          | 2021 |
| ★ IEEE/CVF International Conference on Computer Vision ( <b>ICCV</b> )                    | 2021 |

|                                                                                           |      |
|-------------------------------------------------------------------------------------------|------|
| ★ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining ( <b>KDD</b> )                  | 2021 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> ) Survey Track | 2021 |
| ★ The Annual Meeting of the Association for Computational Linguistics ( <b>ACL</b> )      | 2021 |
| ★ IEEE International Conference on Multimedia and Expo ( <b>ICME</b> )                    | 2021 |
| ★ The Annual Conference on Neural Information Processing Systems ( <b>NeurIPS</b> )       | 2020 |
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2020 |
| ★ IEEE Conference on Computer Vision and Pattern Recognition ( <b>CVPR</b> )              | 2020 |
| ★ The European Conference on Computer Vision ( <b>ECCV</b> )                              | 2020 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2020 |
| ★ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining ( <b>KDD</b> )                  | 2020 |
| ★ The Int'l Conf. Empirical Methods in Natural Language Processing ( <b>EMNLP</b> )       | 2020 |
| ★ The Conference on Uncertainty in Artificial Intelligence ( <b>UAI</b> )                 | 2020 |
| ★ IEEE International Conference on Big Data ( <b>BigData</b> )                            | 2020 |
| ★ AAAI-20 Emerging Track on AI for Social Impact ( <b>AISI</b> )                          | 2020 |
| ★ European Conference on Artificial Intelligence ( <b>ECAI</b> )                          | 2020 |
| ★ Pacific-Asia Conf. on Knowledge Discovery and Data Mining ( <b>PAKDD</b> )              | 2020 |
| ★ Int'l Conf. Multimedia Information Processing and Retrieval ( <b>MIPR</b> )             | 2020 |
| ★ AAAI Workshop on Affective Content Analysis ( <b>AFFCON</b> )                           | 2020 |
| ★ The Annual Conference on Neural Information Processing Systems ( <b>NeurIPS</b> )       | 2019 |
| ★ IEEE International Conference on Computer Vision ( <b>ICCV</b> )                        | 2019 |
| ★ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining ( <b>KDD</b> )                  | 2019 |
| ★ International Conference on Machine Learning ( <b>ICML</b> )                            | 2019 |
| ★ IEEE Conference on Computer Vision and Pattern Recognition ( <b>CVPR</b> )              | 2019 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2019 |
| ★ The Conference on Uncertainty in Artificial Intelligence ( <b>UAI</b> )                 | 2019 |
| ★ International Conference on Learning Representations ( <b>ICLR</b> )                    | 2019 |
| ★ IEEE International Conference on Big Data ( <b>BigData</b> )                            | 2019 |
| ★ The British Machine Vision Conference ( <b>BMVC</b> )                                   | 2019 |
| ★ Int'l Conf. Multimedia Information Processing and Retrieval ( <b>MIPR</b> )             | 2019 |
| ★ Pacific-Asia Conf. on Knowledge Discovery and Data Mining ( <b>PAKDD</b> )              | 2019 |
| ★ AAAI Workshop on Affective Content Analysis ( <b>AFFCON</b> )                           | 2019 |
| ★ IJCAI Workshop on Financial Technology and Natural Language Processing                  | 2019 |
| ★ Ubicomp Workshop Continual and Multimodal Learning for Internet of Things               | 2019 |
| ★ IEEE BigMM Workshop Cross-Modal Person Re-identification                                | 2019 |
| ★ The Annual Conference on Neural Information Processing Systems ( <b>NIPS</b> )          | 2018 |
| ★ International Joint Conference on Artificial Intelligence ( <b>IJCAI</b> )              | 2018 |
| ★ AAAI Conference on Artificial Intelligence ( <b>AAAI</b> )                              | 2018 |
| ★ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining ( <b>KDD</b> )                  | 2018 |
| ★ ACM International Conference on Multimedia ( <b>MM</b> )                                | 2018 |
| ★ Int'l Conf. Multimedia Information Processing and Retrieval ( <b>MIPR</b> )             | 2018 |
| ★ IEEE International Conference on Big Data ( <b>BigData</b> )                            | 2018 |
| ★ Pacific-Asia Conf. on Knowledge Discovery and Data Mining ( <b>PAKDD</b> )              | 2018 |
| ★ IEEE International Conference on Tools with Artificial Intelligence ( <b>ICTAI</b> )    | 2018 |
| ★ AAAI Workshop on Affective Content Analysis ( <b>AFFCON</b> )                           | 2018 |

- ★ CCF Int'l Conf. Natural Language Processing and Chinese Computing 2018
- ★ International Joint Conference on Artificial Intelligence (IJCAI) 2017
- ★ AAAI Conference on Artificial Intelligence (AAAI) 2017
- ★ International Conference Data Science and Advanced Analytics (DSAA) 2017
- ★ IEEE International Conference on Automatic Face and Gesture Recognition (FG) 2017
- ★ Int'l Conference on Affective Computing and Intelligent Interaction (ACII) 2017
- ★ Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD) 2017
- ★ CCF Int'l Conf. Natural Language Processing and Chinese Computing 2017
- ★ International Joint Conference on Artificial Intelligence (IJCAI) 2016
- ★ International Joint Conference on Artificial Intelligence (IJCAI) 2015
- ★ International Conf. on Advanced Cognitive Technologies and Applications 2015
- ★ International Conf. on Advanced Cognitive Technologies and Applications 2014
- **Journal Reviewer**
  - ★ Science
  - ★ Nature
  - ★ Nature Communications
  - ★ IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI)
  - ★ IEEE Transactions on Neural Networks and Learning Systems (T-NNLS)
  - ★ IEEE Transactions on Knowledge and Data Engineering (T-KDE)
  - ★ IEEE Transactions on Image Processing (T-IP)
  - ★ IEEE Transactions on Cybernetics (T-CYB)
  - ★ IEEE Transactions on Multimedia (T-MM)
  - ★ IEEE Transactions on Big Data (T-BD)
  - ★ IEEE Transactions on Circuits System for Video Technology (T-CSVT)
  - ★ IEEE Transactions on Emerging Topics in Computational Intelligence (T-ETCI)
  - ★ IEEE Transactions on Mobile Computing (T-MC)
  - ★ IEEE Transactions on Systems, Man and Cybernetics: Systems (T-SMCA)
  - ★ ACM Computing Surveys
  - ★ ACM Transactions on Knowledge Discovery from Data (TKDD)
  - ★ ACM Transactions on Multimedia Computing, Communications, and Applications
  - ★ ACM Transactions on Sensor Networks (TSN)
  - ★ ACM Transactions on Intelligent Systems and Technology (TIST)
  - ★ ACM Transactions on Information Systems (TOIS)
  - ★ Journal of Machine Learning Research (JMLR)
  - ★ International Journal of Computer Vision (IJCV)
  - ★ PLoS ONE
  - ★ International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI)
  - ★ Journal of Visual Communication and Image Representation (JVCIP)
  - ★ Pattern Recognition (PR)
  - ★ Artificial Intelligence in Medicine (AIM)
  - ★ Pattern Analysis and Applications (PAA)
  - ★ Neurocomputing
  - ★ Information Sciences (IS)

- ★ Optical Engineering (OE)
- ★ KSII Trans. Internet and Information Systems (IIS)
- ★ Journal of Electronic Imaging (JEI)
- ★ Neural Computing and Applications (NCAA)
- ★ Neural Processing Letters
- ★ Transportation Research Part B
- ★ Patterns

● **Reviewer for International Conferences**

- ★ AAAI Conference on Artificial Intelligence (AAAI) 2013-2017
- ★ IEEE International Conference on Data Mining (ICDM) 2013-2016
- ★ SIAM International Conference on Data Mining (SDM) 2013-2017
- ★ IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2013-2017
- ★ European Conference on Computer Vision (ECCV) 2014-2016
- ★ ACM Multimedia (MM) 2013-2016
- ★ Asian Conference on Computer Vision (ACCV) 2016
- ★ IEEE International Conference on Computer Vision (ICCV) 2013-2015
- ★ IEEE International Conference on Big Data (BigData) 2013-2016
- ★ IEEE In'l Conf. on Automatic Face and Gesture Recognition (FG) 2013-2017
- ★ IEEE International Conference on Multimedia & Expo 2015
- ★ Asian Conference on Pattern Recognition (ACPR) 2015
- ★ IEEE Int'l Conference on Machine Learning and Applications (ICMLA) 2015
- ★ British Machine Vision Conference (BMVC) 2013-2014
- ★ IEEE Int'l Conf. on Acoustics, Speech, and Signal Processing (ICASSP) 2013-2014
- ★ IEEE International Conference on Image Processing (ICIP) 2009-2011

**COMMITTEE  
SERVICE**

- Member, Associate Dean for Research Search Committee, SDS, UVA 2025 -
- Research Subcommittee Co-chair, AI Strategy Committee, SDS, UVA 2025 -
- Member, Research Computing Faculty Advisory Committee, UVA 2024 -
- Member, Faculty Search Committee, SDS, UVA 2022 -
- Member, Faculty Promotion & Tenure Committee, SDS, UVA 2024 -
- Member, Research Advisory Committee, SDS, UVA 2023 -
- Member, Assistant Dean Search Committee, SDS, UVA 2024 - 2025
- Member, PhD Admission Committee, SDS, UVA 2023 - 2025
- Member, CS Research Events Committee, UGA 2018 - 2022
- Member, CS Award Committee, UGA 2022
- Member, CS Faculty Search Committee (NLP), UGA 2019 - 2020
- Member, CS/Statistics Data Science Program Committee, UGA 2020 - 2022
- Member, CS Faculty Search Committee (Data Science), UGA 2020 - 2021
- Member, Statistics Faculty Search Committee (Data Science), UGA 2020 - 2021
- Member, Statistics Faculty Search Committee (Computer Vision), UGA 2021 - 2022

**PROFESSIONAL  
ASSOCIATIONS**

- Institute of Electrical and Electronics Engineers (IEEE) Senior Member
- IEEE CIS Intelligent Systems Applications Technical Committee (TC) Member
- IEEE Image, Video, and Multidimensional Signal Processing TC Member
- Association for Computing Machinery (ACM) Senior Member
- ★ Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD)
- ★ Special Interest Group on Information Retrieval (SIGIR)
- American Association for the Advancement of Science (AAAS) Member
- Association for the Advancement of Artificial Intelligence (AAAI) Senior Member
- Society for Industrial and Applied Mathematics (SIAM) Member
- International Neural Network Society (INNS) Member
- Institute for Operations Research and the Management Sciences (INFORMS) Member