

Sheng Li

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RESEARCH INTERESTS

- **Trustworthy Representation Learning:** Extracting robust, unbiased, fair, transferable, and interpretable representations from high-dimensional data.
- **Causal Inference:** Identifying causal relationships among variables and estimating treatment effects of interventions on outcomes.
- **Visual Intelligence:** Seeking semantically meaningful data structures and feature representations to characterize visual scenes in open and dynamic environments.
- **Interdisciplinary Applications:** Trustworthy artificial intelligence for social good, such as mobile health, biomedical informatics, and ecology.

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.Eng. 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.Eng. in Computer Science and Engineering 09/2006 - 07/2010
Thesis: “Kernel DCT Discriminant Analysis for Face Recognition”

PROFESSIONAL EXPERIENCE

- **Assistant Professor** 07/2022 - *Present*
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
- **Data 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
- **Research Assistant** 10/2007 - 06/2012
Nanjing University of Posts and Telecommunications, China
Advisor: Prof. Xiaoyuan Jing

HONORS & AWARDS

- 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
- Travel Awards
 - ◊ 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

- 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 TUTORIALS

- **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: 3,927; H-index: 34, i10-index: 72* (Google Scholar, August 2022)

- JOURNAL PAPERS (Accepted/Published)

◇ 1 **Nature Communications**, 2 **IEEE T-PAMI**, 6 **IEEE T-NNLS**, 3 **IEEE T-KDE**, 3 **IEEE T-CSVT**, 3 **ACM TKDD**, 3 **IEEE T-IP**, 1 **IEEE T-ETCI**, 1 **ACM TOMM**, 1 **DMKD**, 1 **ISJ**, 1 **NN**, 1 **MTA**, 1 **eLife**, and 1 **BMC Bioinformatics**.

- [J1] Rahil Taujale*, Zhongliang Zhou*, Wayland Yeung, Kelley Moremen, **Sheng Li**, and Natarajan Kannan. “Mapping the glycosyltransferase fold landscape using interpretable deep learning.” *Nature Communications*, 2021. (* indicates equal contribution)
- [J2] 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.
- [J3] 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 (TNNLS)*, 2021.
- [J4] Liuyi Yao, Zhixuan Chu, **Sheng Li**, Yaliang Li, Jing Gao, and Aidong Zhang. “A Survey on Causal Inference”. *ACM Trans. Knowledge Discovery from Data (TKDD)*, 2021.
- [J5] 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.
- [J6] 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)*, 2020.

- [J7] 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 glycosyl-transferases.” *eLife*, 2020.
- [J8] LiangChin 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*, 2020.
- [J9] **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)
- [J10] 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)*, 2019.
- [J11] 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.
- [J12] 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.
- [J13] Zhao Zhang, Yan Zhang, **Sheng Li**, Guangcan Liu, Shuicheng Yan, Meng Wang: Flexible Auto-weighted Local-coordinate Concept Factorization: A Robust Framework for Unsupervised Clustering. *IEEE Trans. Knowledge and Data Engineering (T-KDE)*, 2019.
- [J14] Zhengming Li, Zheng Zhang, Jie Qin, **Sheng Li**, Hongmin Cai. “Low-Rank AnalysisSynthesis Dictionary Learning with Adaptively Ordinal Locality.” *Neural Networks (NN)*, 2019.
- [J15] Fangyu Li, Jose Clemente, Maria Valero, Zion Tse, **Sheng Li**, WenZhan Song. “Smart Home Monitoring System via Footstep Induced Vibrations.” *IEEE Systems Journal*, 2019.
- [J16] Jianyi Liu, Rui Qiao, Yueying Li, **Sheng Li**. “Witness Detection in Multi-Instance Regression and Its Application for Age Estimation”. *Multimedia Tools and Applications*, 2019.
- [J17] **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.
- [J18] **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.
- [J19] **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.
- [J20] **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.
- [J21] 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)*, 2018.
- [J22] 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.

- [J23] 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.
- [J24] Hongfu Liu, Ming Shao, **Sheng Li**, Yun Fu. “Infinite Ensemble Clustering”. *Data Mining and Knowledge Discovery (DMKD)*, 32(2): 385-416, 2018.
- [J25] 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.
- [J26] **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.
- [J27] **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.
- [J28] 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.
- [J29] **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. (**Invited Paper**, * indicates equal contributions).
- [J30] 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.
- [J31] 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.
- [J32] 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.
- [J33] 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.
- [J34] 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.
- [J35] **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.
- [J36] **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.

- CONFERENCE PAPERS

- ◇ 6 **KDD**, 2 **NeurIPS**, 11 **IJCAI**, 6 **AAAI**, 6 **SDM**, 8 **CIKM**, 5 **ICDM**, 3 **SIGIR**, 3 **IEEE BigData**, 1 **ICLR**, 1 **CVPR**, 1 **ICCV**, 1 **ECCV**, 1 **NAACL**, 1 **WSDM**, 1 **RecSys**, 3 **IJCNN**, and 20+ [**FG**, **ICME**, **ICMR**, **MIPR**, **ICPR**, **ICIP**, **ICASSP**]

- [C1] 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 (SIGKDD)*, 2022.
- [C2] Ronghang Zhu and **Sheng Li**. “CrossMatch: Cross-Classifer Consistency Regularization for Open-Set Single Domain Generalization.” *International Conference on Learning Representations (ICLR)*, 2022.
- [C3] 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)*, 2022.
- [C4] Ronghang Zhu and **Sheng Li**. “Self-supervision based Semantic Alignment for Unsupervised Domain Adaptation.” *SIAM International Conference on Data Mining (SDM)*, 2022.
- [C5] 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)*, 2022.
- [C6] 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)*, 2022.
- [C7] Saed Rezayi, Handong Zhao and **Sheng Li**. “XDC: Adversarial Adaptive Cross Domain Face Clustering.” *The Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI)*, 2022. (Poster)
- [C8] 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)*, 2022.
- [C9] 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.
- [C10] 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.
- [C11] 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.
- [C12] 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)*, 2021.
- [C13] 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)*, 2021. (Long Paper)
- [C14] 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)*, 2021.
- [C15] 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)*, 2021.

- [C16] 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)*, 2021.
- [C17] Ronghang Zhu and **Sheng Li**. “Self-supervised Universal Domain Adaptation with Adaptive Memory Separation.” *IEEE International Conference on Data Mining (ICDM)*, 2021.
- [C18] 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)*, 2021. (Selected as one of **Best-Ranked Papers** at ICDM-2021)
- [C19] 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)*, 2021. (Selected as one of **Top Papers** at ICME-2021)
- [C20] Kang Yuan, **Sheng Li**. “2.5D Pose Guided Human Image Generation.” *ACM International Conference on Multimedia Retrieval (ICMR)*, 2021.
- [C21] 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)*, 2021.
- [C22] 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)*, 2021.
- [C23] Sumer Singh and **Sheng Li**. “Exploiting Auxiliary Data for Offensive Language Detection with Bidirectional Transformers.” *ACL Workshop on Online Abuse and Harms (ACL WOAHH)*, 2021.
- [C24] 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)*, 2020.
- [C25] 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)*, 2020.
- [C26] 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)*, 2020.
- [C27] **Sheng Li** and Handong Zhao. “A Survey on Representation Learning for User Modeling.” *The 29th International Joint Conference on Artificial Intelligence (IJCAI)*, 2020.
- [C28] Heng-Shiou Sheu and **Sheng Li**. “Context-aware Graph Embedding for Session-based News Recommendation.” *The 14th ACM Conference on Recommender Systems (ACM RecSys)*, 2020.
- [C29] 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)*, 2019. (Acceptance Rate: 17.9%)
- [C30] 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)*, 2019. (Acceptance Rate: 17.9%)

- [C31] 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)*, 2019. (Acceptance Rate: 17.9%)
- [C32] 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)*, 2019. (Oral Presentation; Acceptance Rate: 9.2%)
- [C33] 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)*, 2019. (Acceptance Rate: 14%)
- [C34] 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)*, 2019. (Acceptance Rate: 25.2%)
- [C35] 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)*, 2019. (Acceptance Rate: 22.7%)
- [C36] Zheng Zhang, Yang Li, **Sheng Li**, Guosen Xie and Zi Huang. “SADIH: Semantic-Aware DIscrete Hashing”. *The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI)*, 2019. (Acceptance Rate: 16.2%)
- [C37] Donghyun Kim, Sungchul Kim, Handong Zhao, Ryan Rossi, **Sheng Li**, and Eunyeek 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)*, 2019. (Acceptance Rate: 16.4%)
- [C38] 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)*, 2019. (Acceptance Rate: 24.4%)
- [C39] 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)*, 2019.
- [C40] 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)*, 2019.
- [C41] 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)*, 2019.
- [C42] 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)*, 2019.
- [C43] 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)*, 2018. (Acceptance Rate: 20.8%)
- [C44] 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)*, 2018. (Acceptance Rate: 24.6%)

- [C45] 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)*, 2018. (Acceptance Rate: 24.6%)
- [C46] Shumin Jing, **Sheng Li**. “Contextual Collaborative Filtering for Student Response Prediction in Mixed-Format Tests”. *The Thirty-Second AAAI Conference on Artificial Intelligence (AAAI)*, 2018. (Poster)
- [C47] Zhengming Ding, **Sheng Li**, Ming Shao and Yun Fu. “Graph Adaptive Knowledge Transfer for Unsupervised Domain Adaptation”. *European Conference on Computer Vision (ECCV)*, 2018. (Acceptance Rate: 31.8%)
- [C48] 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)*, 2018.
- [C49] 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)*, 2018.
- [C50] 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)*, 2018.
- [C51] 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 ECNLP)*, 2018.
- [C52] 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)*, 2018.
- [C53] 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)*, 2018.
- [C54] 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)*, 2018.
- [C55] 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.
- [C56] **Sheng Li**, Yun Fu. “Matching on Balanced Nonlinear Representations for Treatment Effects Estimation”. *The Thirty-first Annual Conference on Neural Information Processing Systems (NIPS)*, 2017. (Acceptance Rate: 20.9%)
- [C57] **Sheng Li**, Yun Fu. “Robust Multi-Label Semi-Supervised Classification”. *IEEE International Conference on Big Data (IEEE BigData)*, 2017. (Acceptance Rate: 17.8%)
- [C58] **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)*, 2017. (Acceptance Rate: 17.8%)
- [C59] 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)*, 2017. (Acceptance Rate: 26%)
- [C60] **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)*, 2016. (Acceptance Rate: 24%)

- [C61] **Sheng Li**. “Learning Robust Representations for Data Analytics,” *The 25th International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.
- [C62] **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)*, 2016. (Long Paper; Acceptance Rate: 17.6%)
- [C63] Zhiqiang Tao, Hongfu Liu, **Sheng Li** and Yun Fu. “Robust Spectral Ensemble Clustering”, *The 25th ACM International Conference on Information and Knowledge Management (CIKM)*, 2016. (Long Paper; Acceptance Rate: 18%)
- [C64] 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)*, 2016. (Acceptance Rate: 20%)
- [C65] **Sheng Li** and Yun Fu. “Unsupervised Transfer Learning via Low-Rank Coding for Image Clustering”, *International Joint Conference on Neural Networks (IJCNN)*, 2016.
- [C66] Guoqiang Zhong, Yan Zheng, **Sheng Li** and Yun Fu. “Scalable Large Margin Online Metric Learning,” *International Joint Conference on Neural Networks (IJCNN)*, 2016.
- [C67] **Sheng Li**, Kang Li and Yun Fu. “Temporal Subspace Clustering for Human Motion Segmentation,” *International Conference on Computer Vision (ICCV)*, 2015.
- [C68] **Sheng Li**, Ming Shao and Yun Fu. “Cross-View Projective Dictionary Learning for Person Re-identification,” *International Joint Conference on Artificial Intelligence (IJCAI)*, 2015. (Acceptance Rate: 28.7%)
- [C69] Ming Shao, **Sheng Li**, Zhengming Ding and Yun Fu. “Deep Linear Coding for Fast Graph Clustering,” *International Joint Conference on Artificial Intelligence (IJCAI)*, 2015. (Acceptance Rate: 28.7%)
- [C70] **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)*, 2015. (Long Paper; Acceptance Rate: 18%)
- [C71] **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)*, 2015.
- [C72] **Sheng Li**, Ming Shao and Yun Fu. “Multi-View Low-Rank Analysis for Outlier Detection,” *SIAM International Conference on Data Mining (SDM)*, 2015.
- [C73] **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)
- [C74] Kang Li, **Sheng Li** and Yun Fu. “Early Classification of Ongoing Observation,” *IEEE International Conference on Data Mining (ICDM)*, 2014. (Regular Paper)
- [C75] **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)*, 2014.
- [C76] 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)*, 2014. (Oral Presentation, **Best Paper Award Candidate**, 4 out of 716 submissions)
- [C77] **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%)
- [C78] **Sheng Li**, Peng Li and Yun Fu. “Understanding 3D Human Torso Shape via Manifold Clustering,” *SPIE Defense, Security, and Sensing (DSS)*, 2013.

- [C79] 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)*, 2013. (**Best Student Paper Honorable Mention Award**)
- [C80] **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.
- [C81] 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.
- [C82] 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.
- [C83] 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.
- [C84] 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.
- [C85] 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.
- [C86] 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.
- [C87] **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.
- [C88] **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.

- BOOK

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

- BOOK CHAPTERS

- [P3] Kang Li, **Sheng Li** and Yun Fu. Time Series Modeling for Activity Prediction. *Human Activity Recognition and Prediction*, Springer, 2016.
- [P2] **Sheng Li**, Liangyue Li and Yun Fu. Low-Rank Dictionary Learning. *Low-Rank and Sparse Modeling for Visual Analysis*, Springer, 2014..
- [P1] **Sheng Li**, Ming Shao and Yun Fu. Low-Rank Outlier Detection. *Low-Rank and Sparse Modeling for Visual Analysis*, Springer, 2014.

PATENTS

- *Interpretable user modeling from unstructured user data*
Handong Zhao, Zhiqiang Tao, Zhaowen Wang, **Sheng Li**, Chen Fang
US Patent: US11381651B2. Filed: 05/29/2019. Granted: 07/05/2022
- *Generating scene graphs from digital images using external knowledge and image reconstruction*
Handong Zhao, Zhe Lin, **Sheng Li**, Mingyang Ling, Jiuxiang Gu
US Patent: US11373390B2. Filed: 06/21/2019. Granted: 06/28/2022
- *Adversarial Training for Event Sequence Analysis*
Xiaowei Jia, **Sheng Li**, Handong Zhao, Sungchul Kim
US Patent: US20200327446A1. Filed: 04/10/2019
- *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: US11049041B2. Filed: 04/26/2018. Granted: 06/29/2021
- *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: US20190325068A1. Filed: 04/19/2018.
- *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

- **CSCI 3360 Data Science I** Spring 2022
Instructor University of Georgia
- **STAT/CSCI 4990 Data Science Capstone** Spring 2022
Instructor University of Georgia
- **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
- **EECE 5642 Data Visualization** (*40 Students*) Spring 2017
Assistant Lecturer Northeastern University
- **EECE 7398 Human Centered Computing** (*15 Students*) Fall 2016
Assistant Lecturer Northeastern University
- **EECE 5642 Data Visualization** (*40 Students*) Fall 2015
Assistant Lecturer Northeastern University
- **EECE 5698 Found of Visualization** (*40 Students*) Fall 2014
Assistant Lecturer Northeastern University
- **IEEE Student Chapter Survey Course: Introduction to Machine Learning** 2014
Instructor Northeastern University

MENTORING

Current PhD Students

- Seyedsaed Rezayidemne (Spring 2019 -), UGA CS
- Ronghang Zhu (Fall 2019 -), CS, UGA
- Zhongliang Zhou (Spring 2020 -), CS, UGA
- Daiqing Qi (Fall 2021 -), DS, UVA
- Weili Shi (Fall 2021 -), DS, UVA
- Zhanwen Chen (Fall 2021 -), DS, UVA
- Dongliang Guo (Fall 2021 -), CS, UGA
- Mengxuan Hu (Fall 2022 -), CS, UGA

Current Master Students

- Duna Zhan (Fall 2021 -), MS in CS, UGA
- Yangjiaxin Wei (Spring 2022 -), MS in CS, UGA
- Zhaiming Shen (Spring 2022 -), MS in CS, UGA

Graduated PhD Students

- Zhixuan Chu (Fall 2018 - Spring 2021), PhD in Biostatistics (Co-advised with Dr. Stephen Rathbun), MS in CS. Now at Ant Group

Graduated Master Students

- 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

- Masthan Shaik (Fall 2020), BS in CS, UGA
- Matthew Perez Pooser (Fall 2019), BS in CS, UGA
- Daiqing Qi (Fall 2019), BS in EE, UGA
- 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

- Bahaeddin M M Alaila (2019 - now), CS Ph.D. Thesis Committee, UGA
- Abolfazl Farahani (2019 - now), CS Ph.D. Thesis Committee, UGA
- Zhizhong Lin (2019 - now), Statistics Ph.D. Thesis Committee, UGA
- Marcus Hill (2020 - 2022), CS Ph.D. Thesis Committee, UGA
- Haixing Dai (2020 - now), CS Ph.D. Thesis Committee, UGA
- Abdulkarim Kushk (2020 - now), CS Ph.D. Thesis Committee, UGA
- Samiyuru Senarathne (2020 - now), CS Ph.D. Thesis Committee, UGA
- Tsunghan Han (2020 - now), ECE Ph.D. Thesis Committee, UGA
- Yangjiaxin Wei (2020 - now), Geography Ph.D. Thesis Committee, UGA
- Ruowei Liu (2020 - now), Geography Ph.D. Thesis Committee, UGA
- Jiawei Xiong (2020 - now), Educational Psychology Ph.D. Thesis Committee, UGA
- Mohammad Al-Saad (2020 - now), CS Ph.D. Thesis Committee, UGA
- Yu Wang (2021 - now), Statistics Ph.D. Thesis Committee, UGA
- Abdulrahman Gharawi (2021 - now), CS Ph.D. Thesis Committee, UGA
- Farah Saeed (2021 - now), CS Ph.D. Thesis Committee, UGA
- Md. Redwan Islam (2021 - now), CS Ph.D. Thesis Committee, UGA
- Elika Bozorgi (2021 - now), CS Ph.D. Thesis Committee, UGA
- Duna Zhan (2021 - now), Statistics Ph.D. Thesis Committee, UGA
- Hemadri Jayalath (2021 - now), CS Ph.D. Thesis Committee, UGA
- Jayant Parashar (2021 - now), CS Ph.D. Thesis Committee, UGA
- Zirah Khan (2021 - now), CS Ph.D. Thesis Committee, UGA
- Lin Zhao (2022 - now), CS Ph.D. Thesis Committee, UGA
- Wayland Yeung (2020 - 2022), Bioinformatics Ph.D. Thesis Committee, UGA
- Zhengliang Liu (2022 -), CS Ph.D. Thesis Committee, UGA
- Zihao Wu (2022 -), CS Ph.D. Thesis Committee, UGA

MS Thesis Committees

- Xingchen Jian (2019), CS MS Thesis Committee, UGA
- Hari Teja Tatavarti (2019 - 2020), AI MS Thesis Committee, UGA
- Jiaojiao Wang (2020), AI MS Thesis Committee
- Jayant Parashar (2020), AI MS Thesis Committee
- Aashish Yadavally (2020), AI MS Thesis Committee
- Kadriye Turkyilmaz (2020 - 2022), CS MS Thesis Committee
- Akarsh V Hebbar (2020 - now), CS MS Thesis Committee
- Anagha Joshi (2021 - now), CS MS Thesis Committee
- Kaustubh Rajendra Rajput (2021 - now), CS MS Thesis Committee
- Ravi Jyani (2021 - now), CS MS Thesis Committee
- Tangrui Li (2021 - now), AI MS Thesis Committee
- Sushanth Kathirvelu (2021 - now), CS MS Thesis Committee
- Sabri Monaf Sabri (2021 - now), AI MS Thesis Committee
- Neelima Pulagam (2021 - now), 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
- Ronghang Zhu, SDM Student Travel Award, 2022
- Zhongliang Zhou, CS Outstanding Graduate Student Award, 2022

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 Unsupervised 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

- *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)
- ◇ Centers for Disease Control and Prevention (CDC)

• Associate Editor

- ◇ IEEE Trans. Neural Networks and Learning Systems (**T-NNLS**) 2022 - Present
- ◇ IEEE Trans. Circuits and Systems for Video Technology (**T-CSVT**) 2021 - Present
- ◇ IEEE Computational Intelligence Magazine (**CIM**) 2019 - Present
- ◇ 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 - Present
- ◇ Neural Computing and Applications (**NCAA**) 2017 - Present

• 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 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 in Conjunction with CVPR 2015
- **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 / Senior Program Committee**
 - ◇ SIAM International Conference on Data Mining (**SDM**) 2023
 - ◇ The Annual Conference on Neural Information Processing Systems (**NeurIPS**) 2022
 - ◇ International Conference on Learning Representations (**ICLR**) 2022
 - ◇ AAAI Conference on Artificial Intelligence (**AAAI**) 2022
 - ◇ International Joint Conference on Artificial Intelligence (**IJCAI**) 2021
 - ◇ AAAI Conference on Artificial Intelligence (**AAAI**) 2021
 - ◇ International Joint Conference on Artificial Intelligence (**IJCAI**) 2020
 - ◇ AAAI Conference on Artificial Intelligence (**AAAI**) 2020
 - ◇ International Conference on Pattern Recognition (**ICPR**) 2020
 - ◇ International Conf. Neural Computing for Advanced Applications (**NCAA**) 2020
 - ◇ AAAI Conference on Artificial Intelligence (**AAAI**) 2019
 - ◇ IEEE Visual Communications and Image Processing Conference (**VCIP**) 2017
- **Program Committee**
 - ◇ International Conference on Machine Learning (**ICML**) 2022
 - ◇ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (**KDD**) 2022
 - ◇ IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) 2022
 - ◇ The European Conference on Computer Vision (**ECCV**) 2022
 - ◇ The 6th Workshop on Online Abuse and Harms (**WOAH**) 2022
 - ◇ International Conference on Machine Learning (**ICML**) 2021
 - ◇ International Conference on Learning Representations (**ICLR**) 2021
 - ◇ IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) 2021
 - ◇ IEEE/CVF International Conference on Computer Vision (**ICCV**) 2021
 - ◇ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (**KDD**) 2021
 - ◇ International Joint Conference on Artificial Intelligence (**IJCAI**) Survey Track 2021
 - ◇ The Annual Meeting of the Association for Computational Linguistics (**ACL**) 2021
 - ◇ IEEE International Conference on Multimedia and Expo (**ICME**) 2021
 - ◇ The Annual Conference on Neural Information Processing Systems (**NeurIPS**) 2020
 - ◇ International Conference on Machine Learning (**ICML**) 2020
 - ◇ IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**) 2020
 - ◇ The European Conference on Computer Vision (**ECCV**) 2020
 - ◇ International Conference on Learning Representations (**ICLR**) 2020
 - ◇ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (**KDD**) 2020
 - ◇ The Int'l Conf. Empirical Methods in Natural Language Processing (**EMNLP**) 2020
 - ◇ The Conference on Uncertainty in Artificial Intelligence (**UAI**) 2020
 - ◇ IEEE International Conference on Big Data (**BigData**) 2020

◇ AAAI-20 Emerging Track on AI for Social Impact (AISI)	2020
◇ European Conference on Artificial Intelligence (ECAI)	2020
◇ Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD)	2020
◇ Int'l Conf. Multimedia Information Processing and Retrieval (MIPR)	2020
◇ AAAI Workshop on Affective Content Analysis (AFFCON)	2020
◇ The Annual Conference on Neural Information Processing Systems (NeurIPS)	2019
◇ IEEE International Conference on Computer Vision (ICCV)	2019
◇ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD)	2019
◇ International Conference on Machine Learning (ICML)	2019
◇ IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2019
◇ International Joint Conference on Artificial Intelligence (IJCAI)	2019
◇ The Conference on Uncertainty in Artificial Intelligence (UAI)	2019
◇ International Conference on Learning Representations (ICLR)	2019
◇ IEEE International Conference on Big Data (BigData)	2019
◇ The British Machine Vision Conference (BMVC)	2019
◇ Int'l Conf. Multimedia Information Processing and Retrieval (MIPR)	2019
◇ Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD)	2019
◇ AAAI Workshop on Affective Content Analysis (AFFCON)	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 (NIPS)	2018
◇ International Joint Conference on Artificial Intelligence (IJCAI)	2018
◇ AAAI Conference on Artificial Intelligence (AAAI)	2018
◇ ACM SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD)	2018
◇ ACM International Conference on Multimedia (MM)	2018
◇ Int'l Conf. Multimedia Information Processing and Retrieval (MIPR)	2018
◇ IEEE International Conference on Big Data (BigData)	2018
◇ Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD)	2018
◇ IEEE International Conference on Tools with Artificial Intelligence (ICTAI)	2018
◇ AAAI Workshop on Affective Content Analysis (AFFCON)	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**

- ◇ 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 (TSON)
- ◇ 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)
- ◇ 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

• **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, Faculty Search Committee, SDS, UVA 2022 - 2023
- 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
- Association for Computing Machinery (ACM) 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) 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