

Scalable Modeling & Imaging & Learning Lab  
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## Research Interest

- Machine Learning, Data Mining, Computer Vision, Medical Imaging Informatics

## Education

### **Rutgers, the State University of New Jersey, New Brunswick, NJ, USA**

Ph.D. in Computer Science, June 2011

- Thesis: *Structured Sparsity: Theorems, Algorithms and Applications*  
Advisor: Dr. Dimitris Metaxas and Dr. Tong Zhang

### **University of Notre Dame, Notre Dame, IN, USA**

- Ph.D. Candidate in Computer Science and Engineering, August 2004 - May 2005

### **Institute of Automation, Chinese Academy of Sciences, Beijing, China**

M.S. in Pattern Recognition and Intelligent Systems, June 2003

- Thesis: *Super Resolution Based Iris Image Enhancement*  
Advisor: Dr. Tieniu Tan

### **Huazhong University of Science and Technology, Wuhan, China**

- B.E. in Control Science and Engineering, June 1996

## Professional Experience

### **Tenured Associate Professor**

- Computer Science and Engineering, U. of Texas at Arlington, TX, 09/2016 -

### **Adjunct Faculty**

- University of Texas Southwestern Medical Center, TX, 04/2015 - present

### **Tenure-track Assistant Professor**

- Computer Science and Engineering, U. of Texas at Arlington, TX, 09/2011 - 08/2016

### **Research Assistant**

- Computer Science, Rutgers University, New Brunswick, NJ, 06/2005 - 07/2011

### **Research Assistant**

- Institute of Automation, Chinese Academy of Science, Beijing, China, 09/2003 - 08/2004

- **Software Engineer**, Industrial and Commercial Bank of China, 07/1996 - 08/2000

## Award and Honor

- **6th Place Winner**, the 3D Structure Prediction Challenge in the 14th Community Wide Experiment on the Critical Assessment of Techniques for Protein Structure Prediction (CASP14), December 2020. (AlphaFold2 from Deepmind won the 1st place),

- **1st Place Winner**, the Contact and Distance Prediction Challenge in the 14th Community Wide Experiment on the Critical Assessment of Techniques for Protein Structure Prediction (CASP14), December 2020.
- **NSF CAREER Award**, National Science Foundation, 2016.
- **1st Place Winner**, the Surgical Tool Detection Challenge, Challenges on Modeling and Monitoring of Computer Assisted Interventions (M2CAI), Athens, Greece, October 2016.
- **Best Student Paper Award**, the 18th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Munich, Germany, October 2015.
- **Best Student Paper Award Finalist**, the 17th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Boston, USA, September 2014.
- **Best Reviewer Award**, the 27th Annual Conference on Neural Information Processing Systems (NIPS), Lake Tahoe, Nevada, USA, December 2013.
- **Best Paper Award**, the 1st MICCAI Workshop on Sparsity Techniques in Medical Imaging (STMI), Nice, France, October 2012.
- **Young Scientist Award Finalist**, the 14th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Toronto, Canada, September 2011.
- **Best Paper Award**, the 6th International Conference on Functional Imaging and Modeling of the Heart (FIMH), New York, USA, May 2011.
- **Young Scientist Award**, the 13th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Beijing, China, September 2010.
- **IBM Watson Emerging Leaders in Multimedia and Signal Processing**, Awarded to 10 students internationally, NY, USA, 2010.
- **Outstanding Graduate**, Chinese Academy of Science, Beijing, China, 2003.
- **Excellent Technology Impetus Prize**, Industrial and Commercial Bank of China, 1999.
- **Outstanding Undergraduate**, Huazhong University of Science and Technology, 1996.

#### PI Grants (Total: \$1.82M)

1. “Digital Pathology Analysis for Lung Cancer Patient Care”, **\$330,649**, CPRIT, 2019 – 2022.
2. Gift Fund for Deep Graph Learning Research, **\$150,000**, XtaiPi, Boston, 2018.
3. “RI: Small: Collaborative Research: A Topological Analysis of Uncertainly Representation in the Brain”, **\$210,000**, NSF IIS, 2017 – 2020.
4. “CAREER: Large Scale Learning for Complex Image-Omics Data Analytics”, **\$535,763**, NSF IIS, 2016 – 2021.
5. “III: Small: Collaborative Research: Robust Materials Genome Data Mining Framework for Prediction and Guidance of Nanoparticle Synthesis”, **\$250,000**, NSF IIS, 2014 – 2018.
6. “Learning Fine-grained Digital Map for Autonomous Driving”, **\$136,058**, Nokia Research America, 2014 – 2016..

7. Gift Fund for Highly Automated Driving Map, \$**50,000**, HERE Map Research, 2014.
8. “Energy Disaggregation for Non-intrusive Load Monitoring”, \$**149,998**, Samsung Research America, 2013 – 2016.
9. “Structured Sparsity for Rapid Magnetic Resonance Imaging”, \$**10,000**, UTA REP, 2012.

### **Co-PI Grants (Total: \$1.07M)**

1. “RAPID: Collaborative: Data Driven Post-Disaster Waste and Debris Volume Predictions using Smartphone Photogrammetry App and Unmanned Aerial Vehicles”, \$**34,137**, NSF CNS, 2017 – 2018.
2. “A Materials Genome Approach to Novel Environment-Friendly Magnets”, \$**15,000**, UTA REP, 2016 – 2017..
3. “CRI: A Spatiotemporal Annotated Human Activity Repository for Advanced Motion Recognition and Analysis Research”, \$**116,000**, NSF CRI, 2014 – 2017.
4. “CMMI:Statistics-based Optimization Methods for Adaptive Interdisciplinary Pain Management”, \$**374,998**, NSF CMMI, 2014 – 2017.
5. “GAANN: Educating Health Informatics Researchers”, \$**533,064**, Department of Education, 2012

### **Teaching Experience**

- ***Undergraduate Courses***

- CSE 2312 Computer Organization and Assembly Language Programming
- Semesters: Fall 2011 - Spring 2015
- Average of Student Evaluation Scores: **4.2/5.0**

- ***Graduate Courses***

- CSE 6392 Advanced Topics in Scalable Searching and Optimization
- Semesters: Spring 2012 - present
- Average of Student Evaluation Scores: **4.5/5.0**
- CSE 5311 Design and Analysis of Algorithms
- Semesters: Fall 2015 - present
- Average of Student Evaluation Scores: **4.2/5.0**

### **Advising and Mentoring**

- **Ph.D Students (18)**

- Yeqing Li (2012-2016, next stop: Google)
- Zheng Xu (2014-2018, next stop: Google)
- Jiawen Yao (2014-2019, next stop: PAIL)
- Ruoyu Li (2014-2020, next stop: Facebook)
- Sheng Wang (2015-2020, next stop: Google)

- Xinliang Zhu (2015-2020, next stop: Amazon)
- Mohammad Minhazul Haq (Start: Fall 2016)
- Ashwin Raju (Start: Fall 2017)
- Chaochao Yan (Start: Fall 2017)
- Jinyu Yang (Start: Fall 2018)
- Yuzhi Guo (Start: Fall 2018)
- Hehuan Ma (Start: Fall 2018; Female)
- Chunyuan Li (Start: Fall 2019; Female)
- Weizhi An (Start: Fall 2019; Female)
- Xiao Chen (Start: Fall 2020)
- Xinsheng Li (Start: Fall 2020)
- Feng Tong (Start: Fall 2020)

- **Master Students with Thesis (10)**

- Chen Chen (01/2012 - 01/2015, next stop: UIUC)
- Dheeraj Ganti (09/2014 - 01/2016, next stop: Oracle)
- Viswanathan Rajalingam (01/2015 - 01/2017, next stop: Samsung Lab)
- Vivek Balaji (01/2015 - 01/2017, next stop: BMW)
- Shirong Xue (09/2015 - 07/2017, next stop: Walmart Lab)
- Ashwin Raju (09/2015 - 07/2017, next stop: UTA PhD)
- Arjun Vekariya (09/2015 - 07/2017, next stop: Raizlabs)
- Xiaoyu Zhang (09/2017 - 12/2018, next stop: UTA PhD)
- Zhifei Deng (08/2016 - 12/2019, next stop: Facebook)
- Siyu Xiu (06/2018 - 01/2020, next stop: FutureDial; Female)

- **Undergraduate**

- John Maynard, Fall 2013
- Pragya Neupane, Fall 2014 (Female)
- Himank Yadav, Fall 2014
- Ogenna Esimai, Spring 2015 (Female)

- **PostDocs and Visiting Scholars (8)**

- Hao Pan, Beijing Institute of Petrochemical Technology, Fall 2014 - Fall 2015
- Longwen Gao, Fudan University, Fall 2014 - Spring 2015
- Xiaoming Li, Zhejiang Sci-Tech University, Fall 2015 - Spring 2016
- Xiaoyan Wei, Hubei University of Economics, Fall 2015 - Fall 2016
- Benxin Zhang, Guilin University of Electronic Technology, Fall 2016 - Spring 2017
- Liu Yang, Central South University, Fall 2017 - Spring 2018
- Feiyun Zhu, Walmart Lab, Fall 2016 - Spring 2018
- Ying Li, Communication University of China, Fall 2019 - Spring 2020.

## **Publication**

### **Invited Book Chapters**

1. [BookChapt'20] **Junzhou Huang** and Ruoyu Li, "Fast Regions-of-Interest Detection in Whole Slide Histopathology Images", *Histopathology and Liquid Biopsy*, IntechOpen, 2020.
2. [BookChapt'17] **Junzhou Huang**, Zheng Xu, "Accelerated Cell Detection with Sparse Convolution Kernels", *Deep Learning and Convolutional Neural Networks for Medical Image Computing*, ISBN: 9783319429984, Springer, 2017
3. [BookChapt'16] **Junzhou Huang**, Yeqing Li, "Advanced Sparsity Techniques in Magnetic Resonance Imaging", *Machine Learning and Medical Imaging*, ISBN: 978-0-12-804076-8, Elsevier Press, 2016.
4. [BookChapt'14] **Junzhou Huang**, Chen Chen and Xinyi Cui, "Sparsity Driven Background Modeling and Foreground Detection", book chapter, *Handbook on Background Modeling and Foreground Detection for Video Surveillance*, CRC Press, 2014.
5. [BookChapt'10] Tian Shen, Shaoting Zhang, **Junzhou Huang**, Xiaolei Huang and Dimitris Metaxas, Integrating Shape and Texture in 3D Deformable Models: From Metamorphs to Active Volume Models, book chapter, to appear in *Multi Modality State-of-the-Art Medical Image Segmentation and Registration Methodologies*, Volume I, Chapter 1, A.S. El-Baz, R. Acharya U, and M. Mirmehdi (Editors), Springer, March 2011.

#### Peer-reviewed Journal Papers

1. [CRT'21] Hehuan Ma, Weizhi An, Yuhong Wang, Hongmao Sun, Ruili Huang and **Junzhou Huang**, "Deep Graph Learning with Property Augmentation for Predicting Drug-Induced Liver Injury", *Chemical Research in Toxicology*, To Appear.
2. [JCB'21] Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Sheng Wang and **Junzhou Huang**, "EPTool: A New Enhancing PSSM Tool for Protein Secondary Structure Prediction", *Journal of Computational Biology*, To Appear
3. [JCB'21a] Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Sheng Wang and **Junzhou Huang**, "Comprehensive Study of Bagging MSA Learning for Protein Structure Property Prediction", *Journal of Computational Biology*, To Appear
4. [TPAMI'21c] Runhao Zeng, Wenbing Huang, Mingkui Tan, Yu Rong, Peilin Zhao, **Junzhou Huang** and Chuang Gan, "Graph Convolutional Module for Temporal Action Localization in Videos", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Major Revision.
5. [TPAMI'21b] Yong Guo, Yin Zheng, Mingkui Tan, Qi Chen, Zhipeng Li, Jian Chen, Peilin Zhao and **Junzhou Huang**, "Towards Accurate and Compact Architectures via Neural Architecture Transformer", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Major Revision.
6. [TPAMI'21a] Jing Liu, Bohan Zhuang, Zhuangwei Zhuang, Yong Guo, **Junzhou Huang**, Jinhui Zhu and Mingkui Tan, "Discrimination-aware Channel Pruning for Deep Neural Networks", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Minor Revision.
7. [TKDE'21a] Kangfei Zhao, Yu Rong, Jeffrey Yu, Wenbing Huang, **Junzhou Huang** and Hao Zhang, "Graph Ordering: Towards the Optimal by Learning", *IEEE Transactions on Knowledge and Data Engineering*, Major Revision.
8. [TPAMI'21] Jiezhong Cao, Yong Guo, Qingyao Wu, Chunhua Shen, **Junzhou Huang** and Mingkui Tan, "Improving Generative Adversarial Networks with Local Coordinate Coding", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, To Appear.

9. [TKDE'21] Yifan Zhang, Peilin Zhao, Shuaicheng Niu, Qingyao Wu, Jiezhong Cao, **Junzhou Huang**, Mingkui Tan, "Online Adaptive Asymmetric Active Learning with Limited Budgets", *IEEE Transactions on Knowledge and Data Engineering*, To Appear.
10. [TRPMS'21] Zeheng Li, Shiwei Zhou, **Junzhou Huang**, Lifeng Yu and Mingwu Jin, "Investigation of Low-Dose CT Image Denoising Using Unpaired Deep Learning Methods", *IEEE Transactions on Radiation and Plasma Medical Sciences*, To Appear
11. [NatureComm'20a] Qingpin Xiao, Lei Wang, Shreyas Supekar, Tao Shen, Heng Liu, Fei Ye, **Junzhou Huang**, Hao Fan, Zhiyi Wei and Cheng Zhang, "Structure of Human Steroid 5-reductase 2 with the Anti-androgen Drug Finasteride", *Nature Communications*, 11-5430, October 2020.
12. [Theranostics'20] Rui Cao, Fan Yang, Si-Cong Ma, Li Liu, Yu Zhao, Yan Li, De-Hua Wu, Tongxin Wang, Wei-Jia Lu, Wei-Jing Cai, Hong-Bo Zhu, Xue-Jun Guo, Yu-Wen Lu, Jun-Jie Kuang, Wen-Jing Huan, Wei-Min Tang, Kun Huang, **Junzhou Huang**, Jianhua Yao and Zhong-Yi Dong, "Development and Interpretation of a Pathomics-based Model for the Prediction of Microsatellite Instability in Colorectal Cancer", *Theranostics*, Volume 10(24), pp.11080-11091, October 2020.
13. [MedIA'20] Jiawen Yao, Xinliang Zhu, Jitendra Jonnagaddala, Nicholas Hawkins and **Junzhou Huang**, "Whole Slide Images based Cancer Survival Prediction using Attention Guided Deep Multiple Instance Networks", *Medical Image Analysis*, Volume 65, October 2020.
14. [BBio'20] Qifeng Bai, Shuoyan Tan, Tingyang Xu, Huanxiang Liu, **Junzhou Huang** and Xiaojun Yao, "MolAICal: a Soft Tool for 3D Drug Design of Protein Targets by Artificial Intelligence and Classical Algorithm", *Briefings in Bioinformatics*, August 2020.
15. [NatureComm'20] Wenhua Liang, Jianhua Yao, Ailan Chen, Qingquan Lv, Mark Zanin, Jun Liu, SookSan Wong, Yimin Li, Jiatao Lu, Hengrui Liang, Guoqiang Chen, Haiyan Guo, Jun Guo, Rong Zhou, Limin Ou, Niyun Zhou, Hanbo Chen, Fan Yang, Xiao Han, Wenjing Huan, Weimin Tang, Weijie Guan, Zisheng Chen, Yi Zhao, Ling Sang, Yuanda Xu, Wei Wang, Shiyue Li, Ligong Lu, Nuofu Zhang, Nanshan Zhong\*, **Junzhou Huang\*** and Jianxing He\*, "Early Triage of Critically Ill COVID-19 Patients Using Deep Learning", *Nature Communications*, 11-3543, July 2020. ( \* Co-corresponding)
16. [TIP'20] Yifan Zhang, Ying Wei, Qingyao Wu, Peilin Zhao, Shuaicheng Niu, **Junzhou Huang** and Mingkui Tan, "Collaborative Unsupervised Domain Adaptation for Medical Image Diagnosis", *IEEE Transactions on Image Processing*, Volume 29, pp. 7834-7844, July 2020.
17. [Neuro'20] Xuefei Ning, Yin Zheng, Zhuxi Jiang, Yu Wang, Huazhong Yang, **Junzhou Huang** and Peilin Zhao, "Nonparametric Topic Modeling with Neural Inference", *Neuro-computing*, Volume 399, pp. 296-306, 2020.
18. [TKDE'20] Xiaoshuang Chen, Yin Zheng, Peilin Zhao, Zhuxi Jiang, Wenye Ma and **Junzhou Huang**, "A Generalized Locally Linear Factorization Machine with Supervised Variational Encoding", *IEEE Transactions on Knowledge and Data Engineering*, Volume 32, pp. 1036-1049, June 2020.
19. [TIP'19] Xiaoming Huang, Yin Zheng, **Junzhou Huang**, Yu-Jin Zhang, "50 FPS Object-Level Saliency Detection via Maximally Stable Region", *IEEE Transactions on Image Processing*, Volume 29, pp. 1384-1396, September 2019.
20. [MedIA'19] Chao Li, Xinggang Wang, Wenyu Liu, Longin Jan Lateckib, Bo Wang and **Junzhou Huang**, "Weakly Supervised Mitosis Detection in Breast Histopathology Images Using Concentric Loss", *Medical Image Analysis*, Volume 53, pp.165-178, April 2019.

21. [TKDE'19] Peilin Zhao, Yifan Zhang, Min Wu, Steven C. H. Hoi, Mingkui Tan and **Junzhou Huang**, "Adaptive Cost-sensitive Online Classification", *IEEE Transactions on Knowledge and Data Engineering*, Volume 31, No. 2, pp.214-228, February 2019.
22. [MedIA'18] Chen Chen, Lei He, Hongsheng Li and **Junzhou Huang**, "Fast Iteratively Reweighted Least Squares Algorithms for Analysis-Based Sparse Reconstruction", *Medical Image Analysis*, Volume 49, pp.141-152, October 2018.
23. [NeuroInfor'18] Zheng Xu, Sheng Wang, Yeqing Li, Feiyun Zhu and **Junzhou Huang**, "PRIM: An Efficient Preconditioning Iterative Reweighted Least Squares Method for Parallel Brain MRI Reconstruction", *Neuroinformatics*, Volume 16, Issue 3-4, pp. 425-430, October 2018.
24. [TPAMI'18] Yeqing Li, Chen Chen, Fei Yang and **Junzhou Huang**, "Hierarchical Sparse Representation for Robust Image Registration", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 40, Issue 9, pp.2151-2164, September 2018.
25. [SPL'18] Xiaoming Huang, Yin Zheng, **Junzhou Huang** and Yujin Zhang, "A Minimum Barrier Distance Based Saliency Box for Object Proposals Generation", *IEEE Signal Processing Letters*, Volume 25, Issue 8, pp. 1126-1130, August 2018.
26. [TPAMI'18b] Yeqing Li, Wei Liu and **Junzhou Huang**, "Sub-Selective Quantization for Learning Binary Code in Large-Scale Image Search", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 40, Issue 6, pp. 1526-1532, June 2018.
27. [Neuro'18] Zhibin Zhu, Jiawen Yao, Zheng Xu, **Junzhou Huang** and Benxin Zhang, "A Simple Primal-dual Algorithm for Nuclear Norm and Total Variation Regularization", *Neurocomputing*, Volume 289, pp. 1-12, May 2018.
28. [MedIA'18] Jiawen Yao, Zheng Xu, Xiaolei Huang and **Junzhou Huang**, "An Efficient Algorithm for Dynamic MRI Using Low-rank and Total Variation Regularization", *Medical Image Analysis*, Volume 44, pp. 14-27, February 2018.
29. [SCI'17] Yuhong Wang, **Junzhou Huang**, Wei Li, Sheng Wang and Chuanfan Ding, "Specific and Intrinsic Sequence Patterns Extracted by Deep Learning from Intra-Protein Binding and Non-binding Peptide Fragments", *Scientific Reports*, November 2017.
30. [JMI'17] Faliu Yi, **Junzhou Huang**, Lin Yang, Yang Xie and Guanghua Xiao, "Automatic Extraction of Cell Nuclei from H&E-stained Histopathological Images", *Journal of Medical Imaging*, Volume 4, pp. 4-12, June 2017.
31. [JTO'17] Xin Luo, Xiao Zang, Lin Yang, **Junzhou Huang**, Faming Liang, Jaime Rodriguez Canales, Ignacio I. Wistuba, Adi Gazdar, Yang Xie, Guanghua Xiao, "Comprehensive Computational Pathological Image Analysis Predicts Lung Cancer Prognosis", *Journal of Thoracic Oncology*, Volume 12, pp.501-509, March 2017.
32. [Neuro'17] Ruogu Fang, Ajay Gupta, **Junzhou Huang**, Pina Sanelli, "TENDER: TENSOR Non-local Deconvolution Enabled Radiation Reduction in CT Perfusion", *NeuroComputing*, Volume 229, pp. 13-22, March 2017.
33. [MedIA'16] Menglin Jiang, Shaoting Zhang, **Junzhou Huang**, Lin Yang, Dimitris Metaxas, "Scalable Histopathological Image Analysis via Supervised Hashing with Multiple Features", *Medical Image Analysis*, Volume 34, pp. 3-12, December 2016.
34. [TPAMI'16] Xiang Yu, **Junzhou Huang**, Shaoting Zhang, Dimitris Metaxas, "Face Landmark Fitting via Optimized Part Mixtures and Cascaded Deformable Model", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 38, Issue 11, pp. 2212-2226, November 2016.

35. [MRI'16] Chen Chen, Yeqing Li, Leon Axel and **Junzhou Huang**, "Real Time Dynamic MRI by Exploiting Spatial and Temporal Sparsity", *Magnetic Resonance Imaging*, Volume 34, Issue 4, pp. 473-482, May 2016
36. [CMIG'15b] Ruogu Fang, Haodi Jiang, **Junzhou Huang**, "Tissue-Specific Sparse Deconvolution for Brain CT Perfusion", *Computerized Medical Imaging and Graphics*, Volume 46, pp. 64-72, December 2015.
37. [CMIG'15] Jinghao Zhou, Zhennan Yan, Giovanni Lasio, **Junzhou Huang**, Baoshe Zhang, Navesh Sharma, Karl Prado, Warren DSouza, "Automated Compromised right Lung Segmentation Method Using a Robust Atlas-based Active Volume Model with Sparse Shape Composition Prior in CT", *Computerized Medical Imaging and Graphics*, Volume 46, pp. 47-55, December 2015.
38. [TIP'15] Chen Chen, Yeqing Li, Wei Liu and **Junzhou Huang**, "SIRF: Simultaneous Satellite Image Registration and Fusion in A Unified Framework", *IEEE Transactions on Imaging Processing*, Vol. 24, No.11, November 2015.
39. [TC'15b] Lin Zhong, Qingshan Liu, Peng Yang, **Junzhou Huang** and Dimitris Metaxas, "Learning Multi-scale Active Facial Patches for Expression Analysis", *IEEE Transaction on Cybernetics*, Volume 45, Number 8, pp.1499-1510, August 2015.
40. [CVIU'15] Xi Peng, **Junzhou Huang**, Qiong Hu, Shaoting Zhang, Ahmed Elgammal and Dimitris Metaxas, "From Circle to 3-Sphere: Head Pose Estimation by Instance Parameterization", *Computer Vision and Image Understanding*, Volume 136, pp.92-102, July 2015.
41. [TC'15a] Xiang Yu, Shaoting Zhang, Zhenan Yan, Fei Yang, **Junzhou Huang**, Norah Dunbar, Matthew Jensen, Judee K. Burgoon and Dimitris N. Metaxas, "Is Interactional Dissynchrony a Clue to Deception? Insights from Automated Analysis of Nonverbal Visual Cues", *IEEE Transactions on Cybernetics*, Volume 45, Issue 3, pp. 506-520, March 2015.
42. [TMI'14] Chen Chen, Fenghua Tian, Hanli Liu and **Junzhou Huang**, "Diffuse Optical Tomography Enhanced by Clustered Sparsity for Functional Brain Imaging", *IEEE Transactions on Medical Imaging*, Volume 33, Issue 12, pp.2323-2331, December 2014.
43. [TPAMI'14] Hongsheng Li, **Junzhou Huang**, Shaoting Zhang and Xiaolei Huang, "Feature Matching with Affine-Function Transformation Models", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 36, Issue 12, pp. 2407-2422, December 2014.
44. [MRI'14b] **Junzhou Huang**, Chen Chen and Leon Axel, "Fast Multi-contrast MRI Reconstruction", *Magnetic Resonance Imaging*, Volume 32, Issue 10, pp. 1344-1352, December 2014.
45. [MRI'14a] Chen Chen and **Junzhou Huang**, "Exploiting the wavelet structure in Compressed Sensing MRI", *Magnetic Resonance Imaging*, Volume 32, Issue 10, pp. 1377-1389, December 2014.
46. [MedIA'14] Chen Chen and **Junzhou Huang**, "The Benefit of Tree Sparsity in Accelerated MRI", Accepted by *Medical Image Analysis*, Volume 18, Issue 6, pp. 834-842, August 2014.
47. [TSP'14] Chen Chen, Yeqing Li and **Junzhou Huang**, "Forest Sparsity for Multi-channel Compressive Sensing", *IEEE Transactions on Signal Processing*, Volume 62, Issue 11, pp. 2803-2813, June 2014.



48. [TPAMI'13] Baiyang Liu, **Junzhou Huang**, Casimir Kulikowski, Lin Yang, "Robust Visual Tracking Using Local Sparse Appearance Model and K-Selection", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 35, Issue 12, pp. 2968-2981, December 2013.
49. [CVIU'13] Shaoting Zhang, Yiqiang Zhan, Xinyi Cui, Mingchen Gao, **Junzhou Huang**, Dimitris Metaxas, "3D Anatomical Shape Atlas Construction using Mesh Quality Preserved Deformable Models", *Computer Vision and Image Understanding*, Special Issue on Shape Modeling in Medical Image, Volume 117, Issue 9, pp. 1061-1071, August 2013.
50. [TSMC'12] Shaoting Zhang, **Junzhou Huang**, Hongsheng Li and Dimitris Metaxas, "Automatic Image Annotation and Retrieval Using Group Sparsity", *IEEE Transactions on Systems, Man, and Cybernetics: Part B*, Volume 42, Issue 3, pp. 838-849, June 2012.
51. [MedIA'12] Shaoting Zhang, Yiqiang Zhan, Maneesh Dewan, **Junzhou Huang**, Dimitris Metaxas and Xiang Zhou, "Toward Robust and Effective Shape Modeling: Sparse Shape Composition", *Medical Image Analysis*, Volume 16, Issue 1, pp. 265-277, January 2012.
52. [JMLR'11] **Junzhou Huang**, Tong Zhang and Dimitris Metaxas. "Learning with Structured Sparsity", *Journal of Machine Learning Research*, Volume 12, pp.3371-3412, December 2011.
53. [CVIU'11] **Junzhou Huang**, Shaoting Zhang, Hongsheng Li, Dimitris Metaxas, "Composite Splitting Algorithms for Convex Optimization", *Computer Vision and Image Understanding*, Volume 115, Issue 12, pp. 1610-1622, December 2011.
54. [MedIA'11] **Junzhou Huang**, Shaoting Zhang, Dimitris Metaxas, "Efficient MR Image Reconstruction for Compressed MR Imaging", *Medical Image Analysis*, Volume 15, Issue 5, pp.670-679, October 2011.
55. [GM'10] Shaoting Zhang, **Junzhou Huang** and Dimitris Metaxas, "Robust Mesh Editing Using Laplacian Coordinates". *Graphical Models*, Volume 73, Issue 1, pp.10-19, January 2011.
56. [AoS'10] **Junzhou Huang** and Tong Zhang, "The Benefit of Group Sparsity", *Annals of Statistics*, Volume 38, Number 4, pp.1978-2004, 2010.
57. [JCST'05] **Junzhou Huang**, Tieniu Tan, Li Ma, Yunhong Wang, "Phase Correlation Based Iris Image Registration Model", *Journal of Computer Science and Technology*, Volume 20, Number 2, pp.419-425, March 2005.

#### Peer-reviewed Conference Papers

1. [ICLR'21] Junchi Yu, Tingyang Xu, Yu Rong, Yatao Bian, **Junzhou Huang** and Ran He, "Graph Information Bottleneck for Subgraph Recognition", In *Proc. of International Conference on Learning Representations*, ICLR'21, Vienna, Austria, May 2021.
2. [DASFAA'21] Kangfei Zhao, Jeffrey Xu Yu, Yu Rong, Ming Liao and **Junzhou Huang**, "Towards Expectation-Maximization by SQL in RDBMS", In *Proc. of International Conference on Database Systems for Advanced Applications*, DASFAA'21, Taipei, Taiwan, April 2021.
3. [ISBI'21] Zihan Wu, Rongbo Shen, **Junzhou Huang**, Liangsheng Wang, Jianhua Yao, "Strongly Supervised Mitosis Detection in Breast Histopathology Images Using Weak Labels", In *Proc. of the IEEE International Symposium on Biomedical Imaging*, ISBI'21, April 2021.

4. [AAAI'21] Jinyu Yang, Peilin Zhao, Yu Rong, Chaochao Yan, Chunyuan Li, Hehuan Ma and **Junzhou Huang**, "Hierarchical Graph Capsule Network", In *Proc. of the Thirty-Fifth AAAI Conference on Artificial Intelligence*, AAAI'21, Vancouver, Canada, February 2021.
5. [AAAI'21a] Qin Wang, Boyuan Wang, Zhenlei Xu, Jiaxiang Wu, Peilin Zhao, Zhen Li, Sheng Wang, **Junzhou Huang** and Shuguang Cui, "PSSM-Distil: Protein Secondary Structure Prediction (PSSP) on Low-Quality PSSM by Knowledge Distillation with Contrastive Learning", In *Proc. of the Thirty-Fifth AAAI Conference on Artificial Intelligence*, AAAI'21, Vancouver, Canada, February 2021.
6. [AAAI'21b] Zhen Chen, Jun Zhang, Shuanlong Che, **Junzhou Huang**, Xiao Han, Yixuan Yuan, "Diagnose Like A Pathologist: Weakly-Supervised Pathologist-Tree Network for Slide-Level Immunohistochemical Scoring", In *Proc. of the Thirty-Fifth AAAI Conference on Artificial Intelligence*, AAAI'21, Vancouver, Canada, February 2021.
7. [AAAI'21c] Siqi Yang, Jun Zhang, **Junzhou Huang**, Brian Lovell and Xiao Han, "Minimizing Labeling Cost for Nuclei Instance Segmentation and Classification with Cross-domain Images and Weak Labels", In *Proc. of the Thirty-Fifth AAAI Conference on Artificial Intelligence*, AAAI'21, Vancouver, Canada, February 2021.
8. [WACV'21] Jinyu Yang, Weizhi An, Chaochao Yan, Peilin Zhao and **Junzhou Huang**, "Context-Aware Domain Adaptation in Semantic Segmentation", *IEEE Winter Conference on Applications of Computer Vision*, WACV'21, January 2021.
9. [BIBM'20a] Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Jinyu Yang, Xinliang Zhu and **Junzhou Huang**, "WeightAhn: Weighted Homologous Alignment for Protein Structure Property Prediction", *IEEE International Conference on Bioinformatics and Biomedicine*, BIBM'20, Seoul, Korea, December 2020.
10. [BIBM'20] Yuzhi Guo, Jiaxiang Wu, Hehuan Ma, Sheng Wang and **Junzhou Huang**, "Protein Ensemble Learning with Atrous Spatial Pyramid Networks for Secondary Structure Prediction", *IEEE International Conference on Bioinformatics and Biomedicine*, BIBM'20, Seoul, Korea, December 2020.
11. [NIPS'20] Chaochao Yan, Qianggang Ding, Peilin Zhao, Shuangjia Zheng, Jinyu Yang, Yang Yu and **Junzhou Huang**, "RetroXpert: Decompose Retrosynthesis Prediction like A Chemist", In *Proc. of the 34th Annual Conference on Neural Information Processing Systems*, NIPS'20, Vancouver, Canada, December 2020.
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111. [MICCAI'14a] Chen Chen, Yeqing Li, Leon Axel, **Junzhou Huang**, "Real time dynamic MRI with dynamic total variation", In *Proc. of the 17th Annual International Conference on Medical Image Computing and Computer Assisted Intervention, MICCAI'14*, Boston, USA, September 2014.
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  126. [FG’13] Xiang Yu, Fei Yang, **Junzhou Huang** and Dimitris Metaxas, “Explicit Occlusion Detection based Deformable Fitting for Facial Landmark Localization”, In *Proc. of the IEEE International Conference on Automatic Face and Gesture Recognition, FG’13*, Shanghai, China, April 2013.
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142. [CVPR'11b] Baiyang Liu, **Junzhou Huang**, Casimir Kulikowski, Lin Yang, "Robust Tracking Using Local Sparse Appearance Model and K-Selection", In *Proc. of the IEEE Computer Society Conf. on Computer Vision and Pattern Recognition, CVPR'11*, Colorado Springs, Colorado, USA, June 2011. **(Oral Presentation)**
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145. [FIMH'11a] Shaoting Zhang, Mustafa Uzunbas, Zhennan Yan, Mingchen Gao, **Junzhou Huang**, Dimitri Metaxas, Leon Axel, "Construction of Left Ventricle 3D Shape Atlas from Cardiac MRI", *The Sixth International Conference on Functional Imaging and Modeling of the Heart*, FIMH'11, New York, USA, May 2011.
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151. [ECCV'10b] Baiyang Liu, Lin Yang, **Junzhou Huang**, Peter Meer, Leiguang Gong, Casimir Kulikowski, "Robust and Fast Collaborative Tracking with Two Stage Sparse Optimization", *The 11th European Conference on Computer Vision*, ECCV'10, Crete, Greece, September, 2010.
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156. [ICCV'09] **Junzhou Huang**, Xiaolei Huang, Dimitris Metaxas, "Learning with Dynamic Group Sparsity", *The 12th International Conference on Computer Vision*, ICCV'09, Kyoto, Japan, October 2009. **(Oral Presentation)**

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#### Peer-reviewed Workshop Papers

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2. [MABM'20] Hehuan Ma, Chaochao Yan, Yuzhi Guo, Sheng Wang, Yuhong Wang, Hong-mao Sun and **Junzhou Huang**, "Improving Molecular Property Prediction on Limited Data with Deep Multi-Label Learning", *IEEE BIBM Workshop on Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics*, MABM'20, Seoul, Korea, December 2020.
3. [BeyondFOM'19] Jie Liu, Yu Rong, Martin Takc and **Junzhou Huang**, "Accelerating Distributed Stochastic L-BFGS by sampled 2nd-Order Information", In *The NeurIPS Workshop on Beyond First Order Methods in Machine Learning Systems*, Vancouver, Canada, December 2019.
4. [MetaLearn'19] Ying Wei, Peilin Zhao, Huaxiu Yao, **Junzhou Huang**, "Transferable Neural Processes for Hyperparameter Optimization", In *The NeurIPS Workshop on Meta Learning*, Vancouver, Canada, December 2019.
5. [GraphRL'19] Huaxiu Yao, Chuxu Zhang, Ying Wei, Meng Jiang, Suhang Wang, **Junzhou Huang**, Nitesh Chawla, Zhenhui Li, "Graph Few-shot Learning via Knowledge Transfer", In *The NeurIPS Workshop on Graph Representation Learning*, Vancouver, Canada, December 2019.
6. [MI-NIPS'19] Yifan Zhang, Ying Wei, Peilin Zhao, Shuaicheng Niu, Qingyao Wu, Mingkui Tan, **Junzhou Huang**, "Collaborative Unsupervised Domain Adaptation for Medical Image Diagnosis", In *The NeurIPS Workshop on Medical Imaging Meets NeurIPS*, Vancouver, Canada, December 2019.
7. [MetaLearn'18] Ho Chung Leon Law, Peilin Zhao, **Junzhou Huang** and Dino Sejdinovic, "Hyperparameter Learning via Distributional Transfer", In *The NIPS 2018 workshop on Meta-Learning*, Montreal, Canada, December 2018.
8. [CDNNRIA'18] Jiaxiang Wu, Yao Zhang, Haoli Bai, Huasong Zhong, Jinlong Hou, Wei Liu, Wenbing Huang and **Junzhou Huang**, "PocketFlow: An Automated Framework for Compressing and Accelerating Deep Neural Networks", In *The NIPS 2018 Workshop on Compact Deep Neural Networks with Industrial Applications*, Montreal, Canada, December 2018.
9. [MLMI'18] Feiyun Zhu, Xinliang Zhu, Sheng Wang, Jiawen Yao, Zhichun Xiao and **Junzhou Huang**, "Robust Contextual Bandit via the Capped- $L_2$  Norm for Mobile Health Intervention", In *The 9th International Workshop on Machine Learning in Medical Imaging*, MLMI'18, Granada, Spain, September 2018.
10. [CVPRW'16] Xi Peng, **Junzhou Huang**, Dimitris Metaxas, "Sequential Face Alignment via Person-Specific Modeling in the Wild", In *Proc. of the IEEE Conference on Computer Vision and Pattern Recognition Workshops*, Las Vegas, USA, June 2016
11. [MLMI'15] Jiawen Yao, Dheeraj Ganti, Xin Luo, Guanghua Xiao, Yang Xie, Shirley Yan and **Junzhou Huang**, "Computer-assisted Diagnosis of Lung Cancer Using Quantitative Topology Features", In *The 6th International Workshop on Machine Learning in Medical Imaging*, MLMI'15, Munich, Germany, October 2015.
12. [PMI'15c] Zheng Xu, **Junzhou Huang**, "Efficient Lung Cancer Cell Detection with Deep Convolution Neural Network", In *The 1st International Workshop on Patch-based Techniques in Medical Imaging*, PMI'15, Munich, Germany, October 2015.
13. [PMI'15b] Hao Pan, Zheng Xu, **Junzhou Huang**, "An Effective Approach for Robust Lung Cancer Cell Detection", In *The 1st International Workshop on Patch-based Techniques in Medical Imaging*, PMI'15, Munich, Germany, October 2015.



14. [PMI'15a] Ruoyu Li, **Junzhou Huang**, “Fast Regions-of-Interest Detection in Whole Slide Histopathology Images”, In *The 1st International Workshop on Patch-based Techniques in Medical Imaging*, PMI'15, Munich, Germany, October 2015. **(Oral Presentation)**
15. [MCV'15] Ruogu Fang, Ming Ni, **Junzhou Huang**, Qianmu Li, Tao Li, “A Efficient 4D Non-Local Tensor Total-Variation for Low-Dose CT Perfusion Deconvolution”, In *The MICCAI Workshop on Medical Computer Vision: Algorithms for Big Data*, MCV'15, Munich, Germany, October 2015.
16. [NILM'14] Yeqing Li, Zhongxing Peng, **Junzhou Huang**, Zhilin Zhang, Jae Hyun Son, “Energy Disaggregation via Hierarchical Factorial HMM”, In *The second International Workshop on Non-Intrusive Load Monitoring*, NILM'14, Austin, TX, USA, June 2014.
17. [STMI'12b] Chen Chen, **Junzhou Huang**, “The Benefit of Tree Sparsity in Accelerated MRI”, In *The MICCAI Workshop on Sparsity Techniques in Medical Imaging*, STMI'12, Nice, France, October 2012. **(Oral Presentation) (Best Paper Award)**
18. [STMI'12a] Chen Chen, **Junzhou Huang** and Leon Axel, “Accelerated Parallel Magnetic Resonance Imaging with Joint Gradient and Wavelet Sparsity”, In *MICCAI Workshop on Sparsity Techniques in Medical Imaging*, STMI'12, Nice, France, October 2012.
19. [MeshMed'12] Xinyi Cui, Shaoting Zhang, Yiqiang Zhan, Mingchen Gao, **Junzhou Huang** and Dimitris Metaxas, “3D Anatomical Shape Atlas Construction using Mesh Quality Preserved Deformable Models”, In *MICCAI Workshop on Mesh Processing in Medical Image Analysis*, MeshMed'12, Nice, France, October 2012.
20. [SPIE'10] Shaoting Zhang, **Junzhou Huang**, Wei Wang, Xiaolei Huang, Dimitris Metaxas, “Cervigram Image Segmentation Based On Reconstructive Sparse Representations”, In *Proc. of SPIE, Medical Imaging: Image Processing*, SPIE'10, San Diego, California, USA, February 2010. **(Oral Presentation)**
21. [MIAAB'06] **Junzhou Huang**, Xiaolei Huang, Dimitris Metaxas, Debarata Banerjee, “3D Tumor Shape Reconstruction from 2D Bioluminescence Images and Registration with CT Images”, In *The 1st Workshop on Microscopic Image Analysis with Applications in Biology*, MIAAB'06, Washington DC, USA, April 2006. **(Oral Presentation)**

## Patent

- A New Algorithm for MRI Reconstruction, US 20120155730 A1, US 8548218, October 2013.
- Method and Apparatus for Multiple Image Registration in the Gradient domain, US 9466108, October 2016
- Method and Apparatus for Image Registration in the Gradient Domain, US 9582882, February 2017
- Method, Apparatus and Computer Program Product for Robust Image Registration Based on Deep Sparse Representation, US20170026630A1, February 2017

## Invited Talks

- “3D Tumor Shape Reconstruction from 2D Bioluminescence Images”, IEEE International Symposium on Biomedical Imaging: From Nano to Macro, Washington, USA, April 2006.

- “Optimization and Learning for Registration of Moving Dynamic Textures”, International Conference on Computer Vision, Rio de Janeiro, Brazil, October 2007.
- “Learning With Structure Sparsity”, International Conference on Machine Learning, Montreal, Canada, June 2009.
- “Learning With Dynamic Group Sparsity”, International Conference on Computer Vision, Kyoto, Japan, October 2009.
- “Sparse Learning and Beyonds”, Institute of Computing Technology, Chinese Academy of Science, Beijing, China, November 2009.
- ”Structure Sparsity for Compressive Sensing”, Institute of Electronics, Chinese Academy of Science, Beijing, China, November 2009.
- “Structured Sparsity and Its Applications on Biomedical Imaging Computer Vision”, Siemens Corporate Research, Princeton, NJ, USA, August 2010.
- “Sparse Learning for Biomedical Imaging and Informatics”, Siemens Medical Solutions, Malvern, PA, USA, August 2010.
- “Structure Sparsity for Dynamic Data Analysis”, ExxonMobil Corporate Strategic Research, Clinton, NJ, USA, September 2010.
- “Efficient MR Image Reconstruction for Compressed MR Imaging”, 13th Annual International Conference on Medical Image Computing and Computer Assisted Intervention, Beijing, China, September 2010.
- “Structured Sparsity and Its Applications”, 6th Annual Watson Workshop Emerging Leaders in Multimedia and Signal Processing, Hawthorne NY, USA, October, 2010.
- “Structured Sparsity and Its Applications on Medical Imaging and Machine Vision”, Department of Computer Science and Engineering, University of Texas at Arlington, TX, USA, March 2011.
- “Sparsity: From Theory to Applications in Machine Learning and Medical Imaging”, Department of Computer Science, Illinois Institute of Technology, Chicago, IL, USA, March 2011.
- “Sparsity Techniques and Their Applications”, NAVTEQ, Chicago, IL, USA, April 2011.
- “Sparsity and Deformable Models for Improved Medical Imaging and Diagnosis”, SPIE on Wavelets and Sparsity XIV, San Diego, CA, USA, August 2011.
- “Fast Composite Splitting Algorithm for Linear Composite Regularization”, SIAM Conference on Imaging Science, Philadelphia, PA, USA, May 2012.
- “Structured Sparsity: When Statistical Learning Met Signal Processing”, Department of Electrical Engineering, University of Texas at Arlington, TX, USA, April 2012.
- “Biomedical Imaging and Learning: When Statistical Learning Met Bio-Applications”, Department of Bioengineering, University of Texas at Arlington, TX, USA, August 2012.
- “Low-frequency Energy Disaggregation”, Samsung Research America, Dallas, TX, USA, March 2013.
- “ $\mathcal{O}(1)$  Algorithms for Overlapping Group Sparsity”, INFORMS Optimization Society Conference, Houston, TX, USA, March 2014.

- “Multichannel Compressed Sensing with Forest Sparsity”, SIAM Conference on Optimization, San Diego, CA, USA, May 2014.
- “Preconditioning for Accelerated Iteratively Reweighted Least Squares in Structured Sparsity Reconstruction”, IEEE Conference on Computer Vision and Pattern Recognition, Columbus, Ohio, USA, June 2014.
- “Recent Algorithm Development in Diffusion Optical Imaging”, Department of Bioengineering, University of Texas at Arlington, TX, USA, September 2014.
- “Big Image-Omics Data Analytics for Clinical Outcome Prediction”, Department of Clinical Science, University of Texas Southwestern Medical Center, Dallas, TX, USA, November 2015.
- “Integration of Pathological Images and Cell Profiling Data for Clinical Outcome Prediction”, National Center for Advancing Translational Sciences, National Institutes of Health, Bethesda, Maryland, USA, January 2016.
- “Biomarker Discovery from Histopathology Images for Clinical Outcome Prediction”, Radiology and Imaging Sciences, National Institutes of Health, Bethesda, Maryland, USA, June 2016.
- “Multi-modal Biomarker Discovery from Imaging Genomic Data”, School of Medicine, University of Maryland, Baltimore, USA, June 2016.
- “Big Imaging-Genomics Data Analytics for Clinical Outcome Prediction”, CVPR Workshop on Medical Computer Vision, Las Vegas, USA, July 2016.
- “Clinical Imaging Biomarker Discovery for Survival Prediction on Lung Cancer Imaging Genetic Data”, the 19th Annual International Conference on Medical Image Computing and Computer Assisted Intervention, Athens, Greece, October 2016.
- “Sparse Learning for Big Medical Data”, Department of Bioinformatics, University of Texas Southwestern Medical Center, Dallas, TX, USA, April 2017.
- “Big Image-Omics Data Analytics for Clinical Outcome Prediction”, GPU Technology Conference, Silicon Valley, May 2017.
- “Survival Prediction from Whole Slide Histopathology Images”, MICCAI PC Meeting, Quebec City, Quebec, Canada, May 2017.
- “Deep Learning Based Survival Prediction from Big Image-Omics Data”, Medical Computer Vision Workshop, Honolulu, Hawaii, USA, July 2017.
- “Deep Graph Learning on Biomedical Data”, MICCAI PC Meeting, Shenzhen, Guangdong, China, June 2019.
- “Application of Artificial Intelligence in Medtech and Life Science”, West Lake University, June 2020.
- “Deep Graph Learning: Foundations, Advances and Applications”, The 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, KDD’20, San Diego, CA, USA, August 2020.
- “Machine Learning: From Concepts to Applications in Biomedicine”, Department of Bioengineering, University of Texas at Arlington, TX, USA, September 2020.
- “How Machine Learning Helps to Better Triage COVID-19 Patients?”, IEEE InTech: A Forum on the Response and Resiliency to COVID-19, USA, December 2020.

## Professional Activities

- **Member**

Institute of Electrical and Electronics Engineers (IEEE)  
Society for Industrial and Applied Mathematics (SIAM)  
The Medical Image Computing and Computer Assisted Intervention Society (MICCAI)  
Association for Advancement of Artificial Intelligence (AAAI)

- **Journal Reviewer**

Annals of Statistics,  
SIAM Journal on Image Science,  
IEEE Signal Processing Letters,  
IEEE Transaction on Multimedia,  
IEEE Transaction on Signal Processing,  
IEEE Transaction on Image Processing,  
IEEE Transactions on Biomedical Engineering,  
IEEE Transactions on Knowledge and Data Engineering,  
IEEE Transactions on Pattern Analysis and Machine Intelligence,  
IEEE Transactions on Circuits and Systems for Video Technology,  
IEEE Transactions on Neural Systems and Rehabilitation Engineering,  
ACM Transactions on Multimedia Computing, Communications and Applications,  
Journal of Optics Express,  
Journal of NeuroComputing,  
Journal of Signal Processing,  
Journal of Medical Image Analysis,  
Journal of Machine Learning Research,  
Journal of Machine Vision and Applications,  
Journal of Signal Image and Video Processing,  
Journal of Computer Vision and Image Understanding,  
Journal of Biomedical Signal Processing and Control,  
Journal of Computational Statistics and Data Analysis,  
Journal of Visual Communication and Image Representation

- **Conference Program Committee or Reviewer**

International Conference on Computer Vision, 2007-2009  
IEEE Conference on Computer Vision and Pattern Recognition, 2008  
International Conference on Tools with Artificial Intelligence, 2009  
European Conference on Computer Vision, 2010  
Pacific-Rim Symposium on Image and Video Technology, 2011  
International Conference on Functional Imaging and Modeling of the Heart, 2011  
International Workshop on High Performance Computing for Biomedical Image Analysis, 2014  
International Conference on Medical Image Computing and Computer Assisted Intervention, 2011-2020  
International Symposium on Biomedical Imaging, 2016  
Annual Conference on Neural Information Processing Systems, 2013-2020  
International Conference on Machine Learning, 2013-2020

- **Program Chair / Session Chair / Area Chair / Senior Program Committee**

The 6th International Conference on Functional Imaging and Modeling of the Heart, New York, USA, May 2011.  
The 1st MICCAI Workshop on Sparsity Techniques in Medical Imaging, Nice, France, October 2012  
The 22th International Conference on Pattern Recognition, Stockholm, Sweden, August

2014

The 18th International Conference on Medical Image Computing and Computer Assisted Intervention, Munich, Germany, October 2015

The 31st AAAI Conference on Artificial Intelligence, San Francisco, California, USA, February 2017

The 20th International Conference on Medical Image Computing and Computer Assisted Intervention, Quebec, Canada, September 2017

The 22nd International Conference on Medical Image Computing and Computer Assisted Intervention, Shenzhen, China, October 2019

The 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, San Diego, CA, USA, August 2020

the 35th AAAI Conference on Artificial Intelligence, Vancouver, Canada, February 2021

The 24th International Conference on Medical Image Computing and Computer Assisted Intervention, Strasbourg, France, September 2021

- **Grant Panel Member and Reviewer**

National Science Foundation, Smart and Connected Health, 2015

National Science Foundation, Small Business Innovation Research, 2015

National Science Foundation, Information Integration and Informatics, 2015

National Science Foundation, Smart and Connected Health, 2016

National Science Foundation, Information Integration and Informatics, 2017

National Science Foundation, Information Integration and Informatics, 2018

- **Outreach Activity**

*Guest Speakers and Demo Demonstration*

Summer Camp for Middle School Students, Arlington, June 2013

Summer Camp for Middle School Girls, Arlington, July 2013

Summer Camp for Middle School Students, Arlington, July 2014

Summer Camp for Middle School Girls, Arlington, July 2014

Summer Camp for Middle School Students, Arlington, July 2015

Summer Camp for Middle School Girls, Arlington, July 2015

Summer Camp for Middle School Students, Arlington, June 2016

Summer Camp for Middle School Girls, Arlington, July 2016

- **Department and University Service**

Member of the Ph.D. Admission Committee, (2012-2014), CSE, UTA.

Member of the Master Admission Committee, (2011-2012), CSE, UTA.

Member of the Enrollments ad hoc Committee (2011-2012), CSE, UTA.

Member of the Visiting Appointments Committees (2014-2020), CSE, UTA.

Member of the Quality Assurance Committees (2014-2020), CSE, UTA.

Member of CSE Volunteer Mentors to Junior Faculty (2020-2021), CSE, UTA

Member of FDL and REP Recognition Committees (2020-2021), CSE, UTA

Member of the Review Committees for the Department Chairs, 2020, CSE, UTA

Member of the Searching Committees for the Nooyi Endowed Chair, 2020, BE, UTA

Member of the Searching Committees for the Faculty Recruiting, 2020, CSE, UTA

Member of the Searching Committees for an Assistant Professor in Genetics, 2020, UTA

## Citations

- **Google Scholar Citations Until January 31, 2021**

– Total Citations: **9833**

- Total Publications: **248**
- H-index: **48**
- I10-index: **147**
- Web <http://scholar.google.com/citations?user=X7KrguAAAAAJ&hl=en>

- **$\geq 500$  Citations in Google Scholar**

- (Cited by **605**) “Learning with structured sparsity”, **J Huang**, T Zhang and D Metaxas, *Journal of Machine Learning Research*, Volume 12, pp. 3371-3412, 2011.
- (Cited by **513**) “The benefit of group sparsity”, **J Huang** and T Zhang, *The Annals of Statistics*, 38(4), pp. 1978-2004, 2010.
- (Cited by **558**) “Robust tracking using local sparse appearance model and k-selection”, B Liu, **J Huang**, L Yang and C Kulikowsk, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 35, Issue 12, pp. 2968-2981, December 2013.