

Haibin Ling

Bodhi Intelligence Lab

Department of Artificial Intelligence, Westlake University

Hangzhou, Zhejiang 310030, China

Email: linghaibin@westlake.edu.cn; haibin.ling@gmail.com

<https://haibinling.github.io/>

<https://scholar.google.com/citations?hl=en&user=v3w4IYUAAAAJ>

RESEARCH INTERESTS

Artificial Intelligence, Computer Vision, Augmented Reality, Biomedical Imaging, AI for Science, Machine Learning

EDUCATION

Ph.D., Computer Science, University of Maryland, College Park, MD, USA, 2006

- Dissertation: “Techniques for Image Retrieval: Deformation Insensitivity and Automatic Thumbnail Cropping”
- Advisor: Professor David W. Jacobs
- Committee: Professors Yiannis Aloimonos, Ben B. Bederson, Rama Chellappa, Larry S. Davis, and Min Wu

M.S., Computer Science, Peking University, Beijing, China, 2000

- Thesis: “Methods for Geographic Data Rectification”
- Advisor: Professor Kunqiu Chen

B.S., Mathematics, Peking University, Beijing, China, 1997

- Major in Probability and Statistics, Minor in Computer Software

MAJOR ACADEMIC EMPLOYMENT HISTORY

- Westlake University, Department of Artificial Intelligence Hangzhou, Zhejiang China
Chair Professor 2025 –
- Stony Brook University, Department of Computer Science Stony Brook, NY USA
SUNY Empire Innovation Professor 2019-2025
- Temple University, Department of Computer and Information Sciences Philadelphia USA
Associate Professor (on leave 2015-2017) 2014-2019
Assistant Professor 2008-2014
- Research Scientist, Siemens Corporate Research Princeton, NJ USA, 2007-2008
- Postdoc, University of California Los Angeles Los Angeles, CA USA, 2006-2007
Supervisor: Professor Stefano Soatto
- Summer Intern, Siemens Corporate Research Princeton, NJ USA, 2005
Mentor: Dr. Kazunori Okada
- Summer Intern, Microsoft Corporation Redmond, WA USA, 2002
- Assistant Researcher, Microsoft Research Asia Beijing, China, 2000-2001
- Software Engineer, Founder Group Corporation Beijing, China, 2000

HONORS AND AWARDS

- Fellow of IEEE, 2023
- TVCG Best Journal Paper Award, IEEE VR 2021
- Yahoo Faculty Research and Engagement Award, 2019
- Amazon Machine Learning Research Award, 2019
- NSF CAREER Award, 2014
- Best Student Paper, ACM Symp. on User Interface Software and Technology (UIST), 2003

PUBLICATIONS

Journal Articles

1. Lu Wei, Zhian Jia, Yufeng Wang, Dagomir Kaszlikowski, and Haibin Ling. “Variational transformer ansatz for the density operator of steady states in dissipative quantum many-body systems.” *Physical Review B (PRB)*, accepted.
2. He Liu, Tao Wang, Congyan Lang, Yidong Li, and Haibin Ling. “Deep Probabilistic Graph Matching.” *IEEE Trans. on Transactions on Knowledge and Data Engineering (T-KDE)*, accepted.
3. Wencheng Han, Runzhou Tao, Haibin Ling, and Jianbing Shen. “Weakly Supervised Monocular 3D Object Detection by Spatial-Temporal View Consistency.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 47(1):84-98, 2025.
4. Huabing Zhou, Hao Wang, Yanduo Zhang, Jiayi Ma, and Haibin Ling. “Word Length-aware Text Spotting: Enhancing Dense Text Detection and Recognition for Camera-captured Document Image.” *IEEE Transactions on Instrumentation & Measurement*, 74:1-15, 2025.
5. Gongpei Zhao, Tao Wang, Congyan Lang, Yi Jin, Yidong Li, and Haibin Ling. “The Cascaded Forward Algorithm for Neural Network Training.” *Pattern Recognition*, 161:111292, 2025.
6. Zhihao Lin, Yongtao Wang, Jinhe Zhang, Xiaojie Chu, and Haibin Ling. “NAS-BNN: Neural Architecture Search for Binary Neural Networks.” *Pattern Recognition*, 159:111086, 2025.
7. Fan Wang, Zhilin Zou, Nicole Sakla, Luke Partyka, Gagandeep Singh, Chuan Huang, Wei Zhao, Haibin Ling, Prateek Prasanna, and Chao Chen. “TopoTxR: A topology-guided deep convolutional network for breast parenchyma learning on DCE-MRIs.” *Medical Image Analysis (MedIA)*, 99:103373, 2025.
8. Haoran Wang, Jiahao Yang, Baosheng Yu, Yibing Zhan, Dapeng Tao, and Haibin Ling. “Distilling Interaction Knowledge for Semi-Supervised Egocentric Action Recognition”, *Pattern Recognition*, 157: 110927, 2025.
9. Yunfan Li, Himanshu Gupta, Prateek Prasanna, IV Ramakrishnan, and Haibin Ling. “Surgical Phase Recognition in Laparoscopic Cholecystectomy”, *Procedia Computer Science*, 239:2006-2012, 2024.
10. Guobao Xiao, Xin Liu, Zhen Zhong, Xiaoqin Zhang, Jiayi Ma, and Haibin Ling. “T-Net++: Effective Permutation-Equivariant Network for Two-View Correspondence Learning.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 46(12):10629-10644, 2024.
11. Libo Zhang, Wenzhang Zhou, Heng Fan, Tiejian Luo, and Haibin Ling. “Robust Domain Adaptive Object Detection with Unified Multi-Granularity Alignment.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 46(12):9161-9178, 2024.

12. Zhiyi Pan, Haochen Sun, Peng Jiang, Ge Li, Changhe Tu, and Haibin Ling. “CC4S: Encouraging Certainty and Consistency in Scribble-Supervised Semantic Segmentation.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 46(12):8918-8935, 2024.
13. Mingzhe Guo, Zhipeng Zhang, Liping Jing, Haibin Ling, and Heng Fan. “Divert More Attention to Vision-Language Object Tracking.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 46(12):8600-8618, 2024.
14. Haoran Wang, Qinghua Cheng, Baosheng Yu, Yibing Zhan, Dapeng Tao, Liang Ding, and Haibin Ling. “Free-Form Composition Networks for Egocentric Action Recognition”, *IEEE Trans. on Circuits and Systems for Video Technology (T-CSVT)*, 34(10):9967-9978, 2024.
15. Yong Xu, Shaohui Pan, Ruotao Xu, and Haibin Ling. “View-aligned pixel-level feature aggregation for 3D shape classification,” *Computer Vision and Image Understanding (CVIU)*, 248:104098, 2024.
16. Kai Zhang, Junchen Shen, Gaoqi He, Yu Sun, Haibin Ling, Hongyuan Zha, Honglin Li, and Jie Zhang. “A Transformative Topological Representation for Link Modeling, Prediction and Cross-domain Network Analysis.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 46(9): 6126-6138, 2024.
17. Xi Yu, Huan-Hsin Tseng, Shinjae Yoo, Haibin Ling, and Yuewei Lin. “INSURE: an Information Theory Inspired Disentanglement and Purification Model for Domain Generalization.” *IEEE Trans. on Image Processing (T-IP)*, 33:3508-3519, 2024.
18. Wensheng Cheng, Yi Wu, Zhenyu Wu, Haibin Ling, and Gang Hua. “Towards High Quality Multi-Object Tracking and Segmentation without Mask Supervision.” *IEEE Trans. on Image Processing (T-IP)*, 33:3369-3384, 2024.
19. Xin Zhao, Yipei Wang, Shiyu Hu, Jing Zhang, Yimin Hu, Rongshuai Liu, Haibin Ling, Yin Li, Renshu Li, Kun Liu, and Jiadong Li. “BioDrone: A Bionic Drone-based Single Object Tracking Benchmark for Robust Vision.” *International Journal of Computer Vision (IJCV)*, 132(5):1659-1684, 2024.
20. Qi Jia, Xinyu Chen, Yi Wang, Xin Fan, Haibin Ling, and Longin Jan Latecki. “A rotation robust shape transformer for cartoon character recognition.” *The Visual Computer*, 40(8): 5575-5588, 2024.
21. Gongyang Li, Zhen Bai, Zhi Liu, Xinpeng Zhang, and Haibin Ling. “Salient Object Detection in Optical Remote Sensing Images Driven by Transformer.” *IEEE Trans. on Image Processing (T-IP)*, 32:5257-5269, 2023.
22. Semir Elezovikj, Jianqing Jia, Chiu C. Tan, and Haibin Ling. “PartLabeling: A Label Management Framework in 3D Space.” *Virtual Reality & Intelligent Hardware*, 5(6):490-508, 2023.
23. Weiyi Gong, Tao Sun, Hexin Bai, Shah Tanvir-ur-Rahman Chowdhury, Peng Chu, Anoj Aryal, Jie Yu, Haibin Ling*, John P. Perdew*, and Qimin Yan*. “Incorporation of density scaling constraint in density functional design via contrastive representation learning.” *RSC Digital Discovery*, 2:1404-1413, 2023. (*Correspondence authors.)
24. Yingtian Pan, Kicheon Park, Jiaying Ren, Nora D. Volkow, Haibin Ling, Alan P. Koretsky, and Congwu Du. “Dynamic 3D imaging of cerebral blood flow in awake mice using self-supervised-learning-enhanced optical coherence Doppler tomography.” *Communications Biology (Nature)*, 6(1):298, 2023.
25. He Liu, Tao Wang, Yidong Li, Congyan Lang, Yi Jin, and Haibin Ling. “Joint Graph Learning and Matching for Semantic Feature Correspondence.” *Pattern Recognition*, 134:109059, 2023.

26. Hongyuan Yu, Houwen Peng, Hao Du, Jianlong Fu, Yan Huang, Liang Wang, and Haibin Ling. “Cyclic Differentiable Architecture Search.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 45(1):211-228, 2023.
27. Tao Zhou, Huazhu Fu, Chen Gong, Ling Shao, Fatih Porikli, Haibin Ling, and Jianbing Shen. “Consistency and Diversity induced Human Motion Segmentation.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 45(1):197-210, 2023.
28. Chinhua Hsiao, Hexin Bai, Haibin Ling, and Jie Yang. “Radiographic identification of dental implant systems using artificial intelligence.” *International Journal of Periodontics and Restorative Dentistry (IJPRD)*, 43(3):363-368, 2023.
29. Sarah Lehman, Semir Elezovikj, Haibin Ling, and Chiu C. Tan. “ARCHIE++: A Cloud-enabled Framework for Conducting AR Usability Testing,” *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, 29(4):2102-2116, 2023.
30. Huabing Zhou, Wei Wu, Yanduo Zhang, Jiayi Ma, and Haibin Ling, “Semantic-supervised Infrared and Visible Image Fusion via a Dual-discriminator Generative Adversarial Network.” *IEEE Trans. on Multimedia (T-MM)*, 25:635-648, 2023.
31. Gongyang Li, Zhi Liu, Dan Zeng, Weisi Lin, and Haibin Ling. “Adjacent Context Coordination Network for Salient Object Detection in Optical Remote Sensing Images,” *IEEE Trans. on Cybernetics*, 53(1):526-538, 2023.
32. Maryam Ajami, Pavani Tripathi, Haibin Ling, and Mina Mahdian. “Automatic detection and localization of cervical carotid artery calcifications in dental cone beam computed tomography (CBCT) studies using deep convolutional neural network.” *Diagnostics*, 12(10):2537, 2022.
33. Tingting Liang, Xiaojie Chu, Yudong Liu, Yongtao Wang, Zhi Tang, Wei Chu, Jingdong Chen, and Haibin Ling, “CBNet: A Composite Backbone Network Architecture for Object Detection,” *IEEE Trans. on Image Processing (T-IP)*, 31:6893-6906, 2022.
34. Huabing Zhou, Jilei Hou, Yanduo Zhang, Jiayi Ma, and Haibin Ling, “Unified Gradient-and Intensity-discriminator Generative Adversarial Network for Image Fusion.” *Information Fusion*, 88:184-201, 2022.
35. Dihan Zheng, Chenglong Bao, Zuoqiang Shi, Haibin Ling, and Kaisheng Ma. “Unsupervised Deep Learning Meets Chan-Vese Model.” *CSIAM Trans. on Applied Mathematics*, 3(4):662-691, 2022.
36. Aoxiang Fan, Jiayi Ma, Xingyu Jiang, and Haibin Ling. “Efficient Deterministic Search with Robust Loss Functions for Geometric Model Fitting.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(11):8212-8229, 2022.
37. Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Heng Fan, Qinghua Hu, Haibin Ling. “Detection and Tracking Meet Drones Challenge,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(11):7380-7399, 2022.
38. Sarah Lehman, Kunal Kolhe, Abrar S. Alrumayh, Haibin Ling, and Chiu C. Tan. “Hidden in Plain Sight: Exploring Privacy Risks of Mobile Augmented Reality Applications.” *ACM Trans. on Privacy and Security (TOPS)*, 25(4):1-35, 2022.
39. Gongyang Li, Zhi Liu, Weisi Lin, and Haibin Ling. “Lightweight Salient Object Detection in Optical Remote Sensing Images via Feature Correlation.” *IEEE Trans. on Geoscience and Remote Sensing (T-GRS)*, 60:1-12, 2022.
40. Hexin Bai, Peng Chu, Jeng-Yuan Tsai, Nathan Wilson, Xiaofeng Qian, Qimin Yan, and Haibin Ling. “Graph Neural Network for Hamiltonian-Based Material Property Prediction.” *Neural Computing and Applications*, 34(6): 4625-4632, 2022.

41. Gongyang Li, Zhi Liu, Weisi Lin, and Haibin Ling. “Multi-Content Complementation Network for Salient Object Detection in Optical Remote Sensing Images.” *IEEE Trans. on Geoscience and Remote Sensing (T-GRS)*, 60:1-13, 2022.
42. Ruyi Lian, Bingyao Huang, Liguang Wang, Qun Liu, Yuewei Lin, and Haibin Ling. “End-to-end orientation estimation from 2D cryo-EM images.” *Acta Crystallographica Section D - Structural Biology*, 78(2):174-186, 2022.
43. Bingyao Huang, Tao Sun, and Haibin Ling. “End-to-end Full Projector Compensation,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(6):2953-2967, 2022.
44. Wenguan Wang, Qiuxia Lai, Huazhu Fu, Jianbing Shen, Haibin Ling, and Ruigang Yang. “Salient Object Detection in the Deep Learning Era: An In-Depth Survey,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(6):3239-3259, 2022.
45. Can Song, Jin Wu, Lei Zhu, Mei Zhang, and Haibin Ling. “Nighttime Road Scene Parsing by Unsupervised Domain Adaptation.” *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 23(4):3244 - 3255, 2022.
46. Jinxiu Liang, Jingwen Wang, Yuhui Quan, Tianyi Chen, Jiaying Liu, Haibin Ling, and Yong Xu, “Recurrent Exposure Generation for Low-Light Face Detection.” *IEEE Trans. on Multimedia (T-MM)*, 22:1609-1621, 2022.
47. Junyi Feng, Songyuan Li, Xi Li, Fei Wu, Qi Tian, Ming-Hsuan Yang, and Haibin Ling. “TapLab: A Fast Framework for Semantic Video Segmentation Tapping into Compressed-Domain Knowledge.” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(3):1591-1603, 2022.
48. Han Xu, Jiayi Ma, Junjun Jiang, Xiaojie Guo, and Haibin Ling. “U2Fusion: A Unified Unsupervised Image Fusion Network,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 44(1): 502-518, 2022.
49. Jianqing Jia, Semir Elezovicj, Heng Fan, Shuojin Yang, Jing Liu, Wei Guo, Chiu C. Tan, and Haibin Ling. “Semantic-Aware Label Placement for Augmented Reality in Street View.” *The Visual Computer*, 37(7):1805-1819, 2021.
50. Pengpeng Liang, Haoxuanye Ji, Erkang Cheng, Yumei Chai, Liming Wang, and Haibin Ling. “Learning Local Descriptors with Multi-Level Feature Aggregation and Spatial Context Pyramid.” *Neurocomputing*, 461:99-108, 2021.
51. Pengpeng Liang, Haoxuanye Ji, Yifan Wu, Yumei Chai, Liming Wang, Chunyuan Liao, and Haibin Ling. “Planar Object Tracking Benchmark in the Wild.” *Neurocomputing*, 454: 254-267, 2021.
52. Bingyao Huang, Ying Tang, Samed Ozdemir, and Haibin Ling. “A Fast and Flexible Projector-Camera Calibration System.” *IEEE Trans. on Automation Science and Engineering (T-ASE)*, 18(3):1049-1063, 2021.
53. Wenguan Wang, Jianbing Shen, Xiankai Lu, Steven C. H. Hoi, and Haibin Ling. “Paying Attention to Video Object Segmentation,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(7):2413-2428, 2021.
54. Yong Xu, Chaoda Zheng, Ruotao Xu, Yuhui Quan, and Haibin Ling. “Multi-View 3D Shape Recognition via Correspondence-Aware Deep Learning.” *IEEE Trans. on Image Processing (T-IP)*, 30:5299-5312, 2021.
55. Yong Xu, Haoyang Zou, Yan Huang, Lianwen Jin, and Haibin Ling. “Super-resolving blurry face images with identity preservation.” *Pattern Recognition Letters*, 146:158-164, 2021.

56. Xingping Dong, Jianbing Shen, Wenguan Wang, Ling Shao, Haibin Ling, and Fatih Porikli. “Dynamical Hyperparameter Optimization via Deep Reinforcement Learning in Tracking,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(5):1515-1529, 2021.
57. Gongyang Li, Zhi Liu, Minyu Chen, Zhen Bai, and Haibin Ling. “Hierarchical Alternate Interaction Network for RGB-D Salient Object Detection.” *IEEE Trans. on Image Processing (T-IP)*, 30:3528-3542, 2021.
58. Shuai Di, Chun-Guang Li, Qi Feng, Mei Zhang, Honggang Zhang, Semir Elezovikj, Chiu C. Tan, and Haibin Ling. “Rainy Night Scene Understanding with Near-Scene Semantic Adaptation.” *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 22(3):594-1602, 2021.
59. Heng Fan*, Hexin Bai*, Liting Lin, Fan Yang, Peng Chu, Ge Deng, Sijia Yu, Harshit, Mingzhen Huang, Juehuan Liu, Yong Xu, Chunyuan Liao, Lin Yuan, and Haibin Ling. “La-SOT: A High-quality Large-scale Single Object Tracking Benchmark.” *International Journal of Computer Vision (IJCV)*, 129:439-461, 2021. (* equal contribution)
60. Yifeng Ding, Shaoguo Wen, Jiyang Xie, Dongliang Chang, Zhanyu Ma, Zhongwei Si, Ming Wu, and Haibin Ling. “AP-CNN: Weakly Supervised Attention Pyramid Convolutional Neural Network for Fine-Grained Visual Classification.” *IEEE Trans. on Image Processing (T-IP)*, 30:2826-2836, 2021.
61. Xin Liu, Zhikai Hu, Haibin Ling, and Yiu-ming Cheung. “MTFH: A Matrix Tri-Factorization Hashing Framework for Efficient Cross-Modal Retrieval,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(3): 964-981, 2021.
62. Qin Zhou, Heng Fan, Hang Su, Shibao Zheng, Hua Yang, Shuang Wu, and Haibin Ling. “Robust and Efficient Graph Correspondence Transfer for Person Re-identification,” *IEEE Trans. on Image Processing (T-IP)*, 30:1623-1638, 2021.
63. Gongyang Li, Zhi Liu, Ran Shi, Zheng Hu, Weijie Wei, Yong Wu, Mengke Huang, and Haibin Ling. “Personal Fixations-Based Object Segmentation with Object Localization and Boundary Protection,” *IEEE Trans. on Image Processing (T-IP)*, 30:1461-1475, 2021.
64. Wenguan Wang, Jianbing Shen, Jianwen Xie, Ming-Ming Cheng, Haibin Ling, and Ali Borji. “Revisiting Video Saliency Prediction in the Deep Learning Era,” *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 43(1): 220-237, 2021.
65. Runsheng Zhang, Yaping Huang, Mengyang Pu, Jian Zhang, Qingji Guan, Qi Zou, and Haibin Ling. “Object Discovery From a Single Unlabeled Image by Mining Frequent Itemset With Multi-scale Features.” *IEEE Trans. on Image Processing (T-IP)*, 39:8606-8621, 2020.
66. Fuling Tang, Yihong Wu, Xiaohui Hou, and Haibin Ling. “3D Mapping and 6D Pose Computation for Real Time Augmented Reality on Cylindrical Objects”, *IEEE Trans. on Circuits and Systems for Video Technology (T-CSVT)*, 30(9):2887-2899, 2020.
67. Zhigang Chang, Qin Zhou, Heng Fan, Hang Su, Hua Yang, Shibao Zheng, and Haibin Ling. “Weighted Bilinear Coding over Salient Body Parts for Person Re-identification.” *Neurocomputing*, 407: 454-464, 2020.
68. Minye Wu, Haibin Ling, Ning Bi, Shenghua Gao, Qiang Hu, Hao Sheng, and Jingyi Yu. “Visual Tracking with Multiview Trajectory Prediction,” *IEEE Trans. on Image Processing (T-IP)*, 29: 8355-8367, 2020.
69. Fan Yang, Lei Zhang, Sijia Yu, Danil Prokhorov, Xue Mei, and Haibin Ling. “Feature Pyramid and Hierarchical Boosting Network for Pavement Crack Detection”, *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 21(4):1525-1535, 2020.

70. Jin Gao, Qiang Wang, Junliang Xing, Haibin Ling, Weiming Hu, and Steve Maybank. "Tracking-by-Fusion via Gaussian Processes Regression Based Transfer Learning," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 42(4):939-955, 2020.
71. Huabing Zhou, Jiayi Ma, Chiu C. Tan, Yanduo Zhang, and Haibin Ling. "Cross-Weather Image Alignment via Latent Generative Model with Intensity Consistency," *IEEE Trans. on Image Processing (T-IP)*, 29(1):5216-5228, 2020.
72. Gongyang Li, Zhi Liu, and Haibin Ling. "ICNet: Information Conversion Network for RGB-D Salient Object Detection," *IEEE Trans. on Image Processing (T-IP)*, 29(1):4873-4884, 2020.
73. Guanyu Xing, Yanli Liu, Haibin Ling, Xavier Granier, and Yanci Zhang. "Automatic Spatially Varying Illumination Simulation of Indoor Scenes Based on a Single RGB-D Image," *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, 26(4):1672-1685, 2020.
74. Xiaojie Guo, Yu Li, Jiayi Ma, and Haibin Ling. "Mutually Guided Image Filtering," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 42(3):694-707, 2020.
75. Weiming Hu, Xinchu Shi, Zongwei Zhou, Junliang Xing, Haibin Ling, and Stephen Maybank. "Dual L1-Normalized Context/Hyper-Context Aware Tensor Power Iteration and Its Applications to Multi-Object Tracking and Multi-Graph Matching." *International Journal of Computer Vision (IJCV)*, 128:360-392, 2020.
76. Heng Fan and Haibin Ling. "Parallel Tracking and Verifying," *IEEE Trans. on Image Processing (T-IP)*, 28(8):4130-4144, 2019.
77. Xinyi Li and Haibin Ling. "Hybrid Camera Pose Estimation With Online Partitioning for SLAM." *IEEE Robotics and Automation Letters (RA-L)* 5(2): 1453-1460, 2020. (with presentation at ICRA 2020)
78. Danping Zou, Yuanxin Wu, Ling Pei, Haibin Ling, and Wenxian Yu. "StructVIO: Visual-inertial Odometry with Structural Regularity of Man-made Environments," *IEEE Trans. on Robotics (T-RO)*, 35(4):999-1013, 2019.
79. Xinchu Shi, Haibin Ling, Yu Pang, Weiming Hu, Peng Chu, and Junliang Xing. "Rank-1 Tensor Approximation for High-Order Association in Multi-Target Tracking." *International Journal of Computer Vision (IJCV)*, 127(8):1063-1083, 2019.
80. Liang Tian, Jing Liu, Haibin Ling, and Wei Guo. "Disparity estimation in stereo video sequence with adaptive spatiotemporally consistent constraints", *The Visual Computer*, 35(10): 1427-1446, 2019.
81. Dan Shen, Haibin Ling, Khanh Pham, Erik Blasch, Genshe Chen. "Computer vision and pursuit-evasion game theoretical controls for ground robots," *Advances in Mechanical Engineering*, 11(8), 2019.
82. Xin Liu, Jiajia Geng, Haibin Ling, and Yiu-ming Cheung. "Attention Guided Deep Audio-Face Fusion for Efficient Speaker Naming," *Pattern Recognition*, 88:557-568, 2019.
83. Lin Chen, Fan Zhou, Yu Shen, Xiang Tian, Haibin Ling, and Yaowu Chen. "Robust Visual Tracking for Planar Objects Using Gradient Orientation Pyramid," *Journal of Electronic Imaging (JEI)*, 28(1):013007, 2019.
84. Yifan Wu, Fan Yang, Yong Xu, and Haibin Ling. "Privacy-Protective-GAN for Privacy Preserving Face De-identification," *Journal of Computer Science and Technology (JCST)*, 34(1):47-60, 2019.
85. Jifeng Shen, Xin Zuo, Wankou Yang, Danil Prokhorov, Xue Mei, and Haibin Ling. "Differential Features for Pedestrian Detection: A Taylor Series Perspective." *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 20(8):2913-2922, 2019.

86. Jifeng Shen, Xin Zuo, Lei Zhu, Jun Li, Wankou Yang, and Haibin Ling. "Pedestrian Proposal and Refining Based on the Shared Pixel Differential Feature." *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 20(6): 2085-2095, 2019.
87. Haoran Wang, Chunfeng Yuan, Jifeng Shen, Wankou Yang, and Haibin Ling. "Action Unit Detection and Key Frame Selection for Human Activity Prediction," *Neurocomputing*, 308:109-119, 2018.
88. Wenguan Wang, Jianbing Shen, and Haibin Ling. "A Deep Network Solution for Attention and Aesthetics Aware Photo Cropping," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 41(7):1531-1544, 2019.
89. Tangquan Qi, Yong Xu, and Haibin Ling. "Tourism Scene Classification Based on Multi-Stage Transfer Learning Model." *Neural Computing and Applications*, 31(8): 4341-4352, 2019.
90. Heng Fan, Xue Mei, Danil Prokhorov, and Haibin Ling. "Multi-level Contextual RNNs with Attention Model for Scene Labeling", *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 19(11):3475-3485, 2018.
91. Tao Wang, Haibin Ling, Congyan Lang, and Songhe Feng. "Graph Matching with Adaptive and Branching Path Following," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 40(12):2853-2867, 2018.
92. Yunlong Yu, Zhong Ji, Xi Li, Jichang Guo, Zhongfei Zhang, Haibin Ling, and Fei Wu. "Transductive Zero-Shot Learning With a Self-Training Dictionary Approach," *IEEE Trans. on Cybernetics*, 48(10):2908-2919, 2018.
93. Hai Min, Wei Jia, Yang Zhao, Wangmeng Zuo, Haibin Ling, and Yuetong Luo. "LATE: A Level Set Method Based on Local Approximation of Taylor Expansion for Segmenting Intensity Inhomogeneous Images," *IEEE Trans. on Image Processing (T-IP)*, 27(10):5016-5031, 2018.
94. Tao Wang and Haibin Ling. "Gracker: A Graph-based Planar Object Tracker," *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 40(6):1494-1501, 2018.
95. Qi Zou, Haibin Ling, Yu Pang, Yaping Huang, and Mei Tian. "Joint Headlight Pairing and Vehicle Tracking by weighted Set Packing in Nighttime Traffic videos", *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 19(6):1950-1961, 2018.
96. Dong Wang, Meng Yi, Fan Yang, Erik Blasch, Carolyn Sheaff, Genshe Chen, and Haibin Ling. "Online Single Target Tracking in WAMI: Benchmark and Evaluation," *Multimedia Tools and Application*, 77(9):10939-10960, 2018.
97. Shuai Di, Honggang Zhang, Chun-Guang Li, Xue Mei, Danil Prokhorov, and Haibin Ling. "Cross-domain Traffic Scene Understanding: A Dense Correspondence based Transfer Learning Approach," *IEEE Trans. on Intelligent Transportation Systems (T-ITS)*, 19(3):745-757, 2018.
98. Yuxi Wang, Yue Liu, Erik Blasch, and Haibin Ling. "Simultaneous Trajectory Association and Clustering for Motion Segmentation," *IEEE Signal Processing Letters (SPL)*, 25(1):145-149, 2018.
99. Tangquan Qi, Yong Xu, Yuhui Quan, Yaodong Wang, and Haibin Ling. "Image-Based Action Recognition Using Hint-Enhanced Deep Neural Networks," *Neurocomputing*, 267:475-488, 2017.
100. Haibin Ling. "Augmented Reality in Reality", *IEEE MultiMedia*, 24(3):10-15, 2017. (Invited)

101. Haiqiang Zuo, Haitao Lang, Erik Blasch, and Haibin Ling. “Covert Photo Classification by Deep Convolutional Neural Networks,” *Machine Vision and Applications (MVA)*, 28(5-6):623-634, 2017.
102. Wei Jia, Bob Zhang, Jingting Lu, Yihai Zhu, Yang Zhao, Wangmeng Zuo, and Haibin Ling. “Palmprint Recognition Based on Completed Directional Representation,” *IEEE Trans. on Image Processing (T-IP)*, 26(9):4483-4498, 2017.
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329. Dan Shen, Haotian Xu, Erik Blasch, Khanh Pham, G. Horvath, Zhonghai Wang, Haibin Ling, and Genshe Chen. "A Holistic Image Segmentation Framework for Cloud Detection and Extraction," in *SPIE Conf. on Defense Security+Sensing*, 2013.
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336. Yi Wu, Genshe Chen, Erik Blasch, Li Bai, and Haibin Ling. "Feature-based background registration in wide-area motion imagery", in *SPIE Conf. on Defense Security+Sensing*, 8402-03, 2012.
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346. Tatyana Nuzhnaya, Erkang Cheng, Haibin Ling, D. Kontos, Predrag Bakic, and Vasileios Megalooikonomou. "Segmentation of Anatomical Branching Structures based on Texture Features and Graph Cut," in *Proc. of IEEE Int'l Symposium on Biomedical Imaging (ISBI)*, pp. 673-676, Chicago, 2011.
347. Yi Wu, Haibin Ling, Erik Blasch, Li Bai, and Genshe Chen. "Visual Tracking based on Log-Euclidean Riemannian Sparse Representation," In *Proc. of the Int'l Symposium on Visual Computing (ISVC)*, 2011.
348. Yi Wu, Jing Hu, Feng Li, Erkang Cheng, Jingyi Yu, and Haibin Ling. "Kernel-based Motion-blurred Target Tracking," In *Proc. of the Int'l Symposium on Visual Computing (ISVC)*, 2011.

349. Yi Wu, Erik Blasch, Genshe Chen, Li Bai, and Haibin Ling. "Multiple Source Data Fusion via Sparse Representation for Robust Visual Tracking." In *Proc. of the Int'l Conf. on Information Fusion (FUSION)*, 2011.
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353. Xinchu Shi, Xiaoqin Zhang, Yang Liu, Weiming Hu, and Haibin Ling. "Multi-cue Based Multi-target Tracking Using Online Random Forests," in *Proc. Int'l Conf. on Acoustics, Speech and Signal Processing (ICASSP)*, 2011.
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361. Qingdi Wei, Xiaoqin Zhang, Weiming Hu, and Haibin Ling. "Compact Visual Codebook for Action Recognition." In *Proc. of IEEE Int'l Conf. on Image Processing (ICIP)*, 3805-3808, Hong Kong, China, 2010.
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Refereed Workshop Publication

368. Matej Kristan, Jiri Matas, ..., Haibin Ling, et al. “The Second Visual Object Tracking Segmentation VOTS2024 Challenge Results.” In the *VOTS 2024 Challenge* in conjunction with ECCV, 2024.
369. Purva Makarand Mhasakar, Kevin Doshi, Ning Wang, Shen Shyang Ho, and Haibin Ling. “Distributed Tracking and Verifying: A Real-Time and High-Accuracy Visual Tracking Edge Computing Framework for Internet of Things.” In *The 4th Workshop on Edge Computing and Communications (EdgeComm)*, 2023.
370. Ziwei Liu, Yongtao Wang, Xiaojie Chu, Nan Dong, Shengxiang Qi, and Haibin Ling. “A Simple and Generic Framework for Feature Distillation via Channel-wise Transformation.” In *ICCV Workshop on Resource Efficient Deep Learning for Computer Vision (RCV)*, 2023.
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373. Heng Fan, Longyin Wen, Dawei Du, Pengfei Zhu, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. “VisDrone-SOT2020: The Vision Meets Drone Single Object Tracking Challenge Results.” In *ECCV Workshops* (4):728-749, 2020.
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376. Dawei Du, Longyin Wen, Pengfei Zhu, Heng Fan, Qinghua Hu, Haibin Ling, Mubarak Shah, et al. “VisDrone-CC2020: The Vision Meets Drone Crowd Counting Challenge Results.” In *ECCV Workshops* (4): 675-691, 2020.
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379. Dawei Du, Pengfei Zhu, Longyin Wen, Xiao Bian, Haibin Ling, Qinghua Hu, et al. “VisDrone-SOT2019: The Vision Meets Drone Single Object Tracking Challenge Results.” In the *Vision Meets Drone (VisDrone2019) Workshop* in conjunction with ICCV, 2019.
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382. Matej Kristan, Ales Leonardis, Jiri Matas, ..., Haibin Ling, et al. “The sixth Visual Object Tracking VOT2018 challenge results.” In the *VOT 2018 Challenge* in conjunction with ECCV, 2018.
383. Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. “VisDrone-DET2018: The Vision Meets Drone Object Detection in Image Challenge Results.” In the *Vision Meets Drone (VisDrone2018) Workshop* in conjunction with ECCV, 2018.
384. Longyin Wen, Pengfei Zhu, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. “VisDrone-SOT2018: The Vision Meets Drone Single-Object Tracking Challenge Results.” In the *Vision Meets Drone (VisDrone2018) Workshop* in conjunction with ECCV, 2018.
385. Pengfei Zhu, Longyin Wen, Dawei Du, Xiao Bian, Haibin Ling, Qinghua Hu, et al. “VisDrone-VDT2018: The Vision Meets Drone Video Detection and Tracking Challenge Results.” In the *Vision Meets Drone (VisDrone2018) Workshop* in conjunction with ECCV, 2018.
386. Heng Fan and Haibin Ling. “SANet: Structure-Aware Network for Visual Tracking.” In the *CVPR 2017 Workshop on DeepVision: Temporal Deep Learning*, 2017.
387. Heng Fan, Xue Mei, Danil V. Prokhorov, Haibin Ling. “RGB-D Scene Labeling with Multimodal Recurrent Neural Networks.” In *IEEE Workshop on Perception Beyond the Visible Spectrum* in conjunction with CVPR, 2017.
388. Liang Du, Haitao Lang, Ying-Li Tian, Chiu C. Tan, Jie Wu, and Haibin Ling. “Covert Video Classification by Codebook Growing Pattern.” in *Int’l Workshop on Moving Cameras Meet Video Surveillance: From Body Cameras to Drones* in conjunction with CVPR, 2016.
389. Kui Liu, Bingwei Liu, Erik Blasch, Dan Shen, Zhonghai Wang, Haibin Ling, and Genshe Chen. “A Cloud Infrastructure for Target Detection and Tracking Using Audio and Video Fusion.” in *Int’l Workshop on Perception Beyond the Visual Spectrum (PBVS) in conjunction with CVPR*, 2015.
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391. Erik Blasch, Zhonghai Wang, Haibin Ling, Kannappan Palaniappan, Genshe Chen, Dan Shen, Alex Aved, and Guna Seetharaman. “Video-Based Activity Analysis Using the L1 Tracker on VIRAT Data,” in *Proc. IEEE Applied Imagery Pattern Recognition (AIPR) Workshop*, 2013.

392. Erik Blasch, Guna Seetharaman, Kannappan Palaniappan, Haibin Ling, and Genshe Chen. “Wide-Area Motion Imagery (WAMI) Exploitation Tools for Enhanced Situation Awareness,” in *Proc. IEEE Applied Imagery Pattern Recognition (AIPR) Workshop: Computer Vision: Time for Change*, 2012.
393. Wei Li, Xiaoqin Zhang, Wenhan Luo, Weiming Hu, Haibin Ling, and Ou Wu. “Robust object tracking with boosted discriminative model via graph embedding,” in *Proc. of the IEEE Int’l Workshop on Visual surveillance*, 1666–1672, 2011.
394. Erik Blasch, Guna Seetharaman, Mike Talbert, Kannappan Palaniappan, and Haibin Ling. “Key Elements to Support Layered Sensing Dismount Tracking,” in *Proc. NATO SET 178-RWS 017 Workshop on Detection of Dismounted Combatants*, Ottawa, ON, Sept. 2011.
395. Sajjad Baloch, Erkang Cheng, Ying Zhu, Ashraf Mohamed, Haibin Ling, and Tong Fang. “Shape based Conditional Random Fields for Segmenting Intracranial Aneurysms,” in *Proc. of the Workshop on Mesh Processing in Medical Image Analysis in conjunction with MICCAI*, 2011.
396. Wei Li, Xiaoqin Zhang, Nianhua Xie, Weiming Hu, Wenhan Luo, and Haibin Ling. “Probabilistic Index Histogram for Robust Object Tracking,” in *Proc. of the Tenth Int’l Workshop on Visual Surveillance*, Queenstown, New Zealand, 2010.
397. Xiaoqin Zhang, Weiming Hu, Xiangyang Wang, Yu Kong, Nianhua Xie, Hanzi Wang, Haibin Ling, and Stephen Maybank. “A Swarm Intelligence Based Searching Strategy for Articulated 3D Human Body Tracking”. In *Proc. of IEEE Workshop on 3D Information Extraction for Video Analysis and Mining in conjunction with CVPR*, San Francisco, 2010.

Book Chapters and Magazine

398. Jie Wei, Weicong Feng, Erik Blasch, Erika Ardiles-Cruz, and Haibin Ling. “Image-based Pre- and Post-Conditional Probability Learning for Efficient Situational Assessment and Awareness.” In *Machine Learning and Granular Computing: A Synergistic Design Environment*, 303-328, Springer-Verlag, 2024.
399. Wei Chang, Huanyang Zheng, Jie Wu, Chiu Tan, and Haibin Ling, “Environment-assisted Vehicular Data in Smart City,” in *Smart Cities: Foundations, Principles, and Applications* (Chapter 29), Wiley, 2017.
400. Ning Chen, Yu Chen, Xinyue Ye, Haibin Ling, Sejun Song, and Chin-Tser Huang. “Smart City Surveillance in Fog Computing,” In *Advances in Mobile Cloud Computing and Big Data in the 5G Era*, C.X. Mavromoustakis et al. (eds.), 2017.
401. Erik Blasch, Riad I. Hammoud, Haibin Ling, Dan Shen, James Nagy, and Genshe Chen. “Context-Based Fusion of Physical and Human Data for Level 5 Information Fusion.” In *Context-Enhanced Information Fusion*, Lauro Snidaro, Jesus Garcia, James Llinas, Erik Blasch (Eds), pp. 479-505, 2016.
402. Erik Blasch, Pengpeng Liang, Xinchu Shi, Peiyi Li, and Haibin Ling. “Entity Association Using Context for Wide Area Motion Imagery Target Tracking.” In *Context-Enhanced Information Fusion*, Lauro Snidaro, Jess Garcia, James Llinas, Erik Blasch (Eds), pp. 569-595, 2016.
403. Dan Shen, Genshe Chen, Haibin Ling, Khanh Pham, and Erik Blasch. “Improving coordination of unmanned vehicles”, *SPIE Newsroom*, August 2014. (Invited)
404. Jianjun Gao, Haibin Ling, Erik Blasch, Khanh Pham, Zhonghai Wang, and Genshe Chen. “Context-aware tracking with wide-area motion imagery”, *SPIE Newsroom*, 2013. (Invited)

405. Andrea Vedaldi, Haibin Ling, and Stefano Soatto. “Knowing a good feature when you see it: ground truth and methodology to evaluate local features for recognition.” In *Computer Vision: Detection, Recognition and Reconstruction*, R. Cipolla, S. Battiato and G.-M. Farinella (Eds), pp. 27–49, Springer, 2010.
406. Haibin Ling and David Jacobs. “Shape Matching for Foliage Database Retrieval”, in *Semantic Mining Technologies for Multimedia Databases*, D. Tao, D. Xu, and X. Li (Eds), pp. 100–129, Idea Group Inc., 2009.

TEACHING

- CSE 527, *Introduction to Computer Vision*, Stony Brook University, Department of Computer Science, Spring 2020, Spring 2021, Spring 2022, Fall 2023, Fall 2024.
- CSE 327, *Fundamentals of Computer Vision*, Stony Brook University, Department of Computer Science, Spring 2022, Fall 2022, Fall 2024.
- CSE 615, *Advanced Computer Vision*, co-teach with Dimitris Samaras, Minh Hoai Nguyen, and Michael Ryoo, Stony Brook University, Department of Computer Science, Spring 2020 –.
- CIS 3223, *Data Structures and Algorithms*, Temple University, Department of Computer and Information Sciences, Spring 2018, Spring 2019.
- CIS 5590, *Introduction to Deep Learning*, Temple University, Department of Computer and Information Sciences, Fall 2018.
- CIS 5543, *Computer Vision*, Temple University, Department of Computer and Information Sciences, Fall 2017.
- CIS 8543/5543, *Computer Vision*, Temple University, Department of Computer and Information Sciences, Spring 2012, Fall 2013, Spring 2015.
- CIS 2033: *Computational Probability and Statistics*, Temple University, Department of Computer and Information Sciences, Fall 2014.
- CIS 2166: *Mathematical Concepts in Computing II*, Temple University, Department of Computer and Information Sciences, Spring 2014.
- CIS 3223/5501, *Data Structures and Algorithms*, Temple University, Department of Computer and Information Sciences, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Spring 2013.
- CIS 8590.002, *Visual Information Analysis*, Temple University, Department of Computer and Information Sciences, Spring 2010, Spring 2011.
- CIS 8590.002, *Statistical Foundations of Data Analysis*, Temple University, Department of Computer and Information Sciences, Spring 2009.

ADVISING

Postdoc and Visiting Scholar

- Huabing Zhou (2018–2019), Wuhan Institute of Technology, China
- Xin Liu (2017–2018), Huaqiao University, China
- Jifeng Shen (2016–2017), Jiangsu University, China
- Lei Zhu (2016–2017), Wuhan University of Science and Technology
- Dong Wang (2015–2016), Dalian University of Technology, China
- Guanyu Xing (2015–2016), Sichuan University

- Haiqiang Zuo (2015–2016), China University of Petroleum
- Tao Wang (2014–2015), Beijing Jiaotong University, China
- Xin Liang (2015), Dalian Medical University, China
- Qi Zou (2014–2015), Beijing Jiaotong University, China
- Yi Wu (2010–2012), Wormpex AI Research
- Haitao Lang (2011), Beijing University of Chemical Technology, China

Doctoral Student Supervision

- Wensheng Cheng
- Suyi Chen
- Kalyan Garigapati
- Yunfan Li (co-advising with Himanshu Gupta, Prateek Prasanna and IV Ramakrishnan)
- Zhenghong Li (co-advising with Yingtian Pan)
- Lu Pang (co-advising with Chao Chen)
- Peiyao Wang
- Yufeng Wang
- Lu Wei
- Zhilin Zou (co-advising with Chao Chen and Prateek Prasanna)

Graduated (year graduated, last known employment, thesis title)

- Ruyi Lian, 2025, South Dakota State University. “Efficient Object Pose Estimation: from Natural Images to Cryo-EM Images.”
- Jiaxiang Ren (co-advised with Yingtian Pan), 2025, Nvidia. “Self-supervised Denoising and Vasculature Reconstruction in Optical Coherence Tomography.”
- Tao Sun, 2024, Amazon. “Overcoming Data Distribution Shifts with Efficient Domain Adaptation Approaches.”
- Semir Elezovikj, 2024, Temple University. “Machine Learning Methods for Autonomous Driving: Visual Privacy, 3D Depth Perception and Trajectory Prediction Modeling.”
- Mengyang Pu (co-advised with Yaping Huang), 2022, North China Electric Power University. “Pixel-Level Image Semantic Understanding.”
- Hexin Bai (co-advised with Kai Zhang), 2022, ByteDance. “Graph Neural Network and Its Applications.”
- Minghao Chen (2020-2022 for PhD study), PhD student at Oxford.
- Jingwei Qu (co-advised with Zhi Tang and Xiaoqing Lu), 2022, Southwest University.
- Heng Fan, 2021, University of North Texas. “Algorithms and Benchmarks for Robust Visual Object Tracking”.
- Bingyao Huang, 2021, Southwest University. “Techniques of Visualization and Security in Spatial Augmented Reality”.
- Xinyi Li, 2021, Zoox. “Robust 6-DOF Camera Relocalization in Multi-view Structure from Motion”
- Fan Yang, 2020, United Imaging Intelligence. “Deep Learning-based Object Perception Algorithm and Application.”
- Peng Chu, 2020, Microsoft. “Deep Neural Network for Robust Multiple Object Tracking”.

- Yu Pang, 2019, Facebook. “Object Trackers Performance Evaluation and Improvement with Applications using High-order Tensor.”
- Lin Chen (visiting PhD student co-advised with Yaowu Chen), 2019, AiBee.
- Qin Zhou (co-advised with Shibao Zheng), 2019, Shanghai Jiaotong University.
- Chunjuan Bo (visiting PhD student co-advised with Huchuan Lu), 2019, Dalian Nationalities University.
- Yuxi Wang (visiting PhD student co-advised with Yue Liu), 2018, Hangzhou Dianzi University.
- Shuai Di (visiting PhD student co-advised with Honggang Zhang), 2017, Jingdong Inc.
- Pengpeng Liang, 2016, Professor at Zhengzhou University. “Techniques for Object Tracking: Algorithms and Benchmarks”.
- Peiyi Li, 2016, Bilibili. “Exploration of 3D Images to Understand 3D Real World”.
- Houwen Peng, 2016 (co-advised with Weiming Hu), Microsoft Research.
- Liang Du, 2015, Microsoft. “Exploiting Competition Relationship for Robust Visual Recognition”.
- Jin Gao, 2015 (co-advised with Weiming Hu), Chinese Academy of Sciences.
- Tatyana Nuzhnaya (co-advised with Vasileios Megalooikonomou), 2015, J.P. Morgan. “Analysis of Anatomical Branching Structures”.
- Haoran Wang, 2015 (visiting PhD student co-advised with Changyin Sun), Northeastern University, China.
- Erkang Cheng, 2014, Nullmax. “Learning based Curvilinear Structure Analysis in Medical Images”
- Xinchu Shi, 2013 (co-advised with Weiming Hu), MeiTuan. “Multiple Target Tracking and Its Application to Aerial Video Motion Analysis”
- Nianhua Xie, 2011 (co-advised with Weiming Hu), Sogou. “Image Category Classification and Its Application to Cannabis Image Filtering”

Master Student Supervision

- Raghuveer Tatineni
- Vijayabharathi Murugan

Graduated (year graduated, last known affiliation, and thesis title if applicable)

- Naman Joshi, 2025
- Pranav Chitale, 2025, PhD student at Stony Brook Univ. “Conformal Prediction for Edge-Cloud Collaborative Inference.”
- Rutwik Segireddy
- Shivasankaran Vanaja Pandi, 2025. “Enhancing Cryo-EM Particle Detection with Contrastive Learning and Deep Clustering.”
- Rohit Dhaipule, 2025, Amazon
- Adarsh Agrawal, 2024, Amazon
- Neelesh Verma, 2024, ChipStack. “Enhancing Crack Detection: Novel Methodologies Leveraging Swin Transformer and Diffusion Models.”
- Kevin Doshi, 2022, Stackline

- Kalyan Garigapati, 2022, PhD student at Stony Brook Univ. “Transparent Object Tracking”.
- Chirag Krishna Goyel, 2022, Stackline
- Purva Mhasakar, 2022, Amazon
- Jay Rajput, 2022, Meta
- Vinayak Shenoy, 2022, Yahoo. “Temporal Action Recognition on Surgical Datasets”.
- Reetu Singh, 2022, Meta
- Zhilin Zou, 2022, PhD student at Stony Brook University. “Joint Registration for Denoising In Optical Coherence Tomography Angiography”.
- Halady Akhilesh Miththanthaya, 2021, Amazon. “A Benchmark for Tracking Transparent Objects”
- Ishan Sachin Mahajan, 2021
- Pavani Tripathi, 2021, Magic Leap. “Weakly Supervised Transparent Object Segmentation in the Wild”
- Gautham Ramajayam, 2021, Bloomberg
- Xuan Qin, 2021. “Single-Image Animation by Cumulative Training and Motion Residual Prediction”
- Sabbarish Ramana Rajan, 2021, Amazon
- Yasha Singh, 2020, Apple
- Kunal Kolhe, 2020, Amazon. “Identifying unauthorized computer vision models on android phones”
- Juehuan Liu, 2020, Amazon
- Vivek Atulkar, 2020, Google
- Siranjiv Ramana Rajan, 2020, Amazon
- Harshit, 2020, Oracle
- Kaustubh Olpadkar, 2020, Bloomberg. “Differentiable Least Recently Used mechanism and its Application in Stranger Detection ”
- Sijia Yu, 2019, joined Rutgers University as a PhD student
- Jianqing Jia, 2019 (co-advised with Wei Guo), joined Syracuse University as a PhD student
- Ge Deng, 2018
- Yifan Wu, 2017, joined University of Pennsylvania as a PhD student
- Meng Yi, 2016, Google
- Xiuwen Yu, 2016
- Ngoc-Tung Nguyen, 2016, SAP
- Tuan Anh Vo, 2015
- Joseph Catrambone, 2014
- Semir Elezovikj, 2014
- Gregory Teodoro, 2014 (co-advised with Justin Y. Shi)
- Liya Ma, 2013, Nullmax
- Congyi Zhou, 2013, Cerner Corporation
- Gregory Johnson, 2012
- Jin Sun, 2012, University of Georgia

- Xiong Yang, 2012 (co-advised with Yong Xu), Great Wall Fund Management
- Jingting Zeng, 2011, Sigma Designs
- Xin Li, 2009, eBay

Undergraduate Student Supervision

- Keying Jia (2024–2025)
- Xiaoyu Hu (2024)
- Mingkai Chen (2023–2024)
- Mingyu Zhao (2023–2024)
- John Dicarlo (2022)
- Zachary Yodh (2019)
- Jiyeon Song (2015–2016)
- Ismail Amzovski (2014–2015)
- Zilong Zou (2014)
- Ferria Amzovski (2013–2014)
- Robert Laderman (2013)
- Haotian Xu (2011–2012)
- Angelo Saxon Jr. (2011)
- Shawn McLaughlin (2010–2011)
- Teresa Rothaar (2010)

PhD Committee Member

- Aggelina Chatziagapi, defended 2025
- Souradeep Chakraborty, defended 2024
- Md Moniruzzaman, defended 2024
- Jinghuan Shang, defended 2024
- Zekun Zhang, defended 2024
- Zhi Chai, defended 2024
- Fan Wang, defended 2024
- Supreeth Narasimhaswamy, defended 2024
- Sidra Hanif (Temple University), defended 2023
- Xiaoling Hu, defended 2023
- Shawn Mathew, defended 2023
- Christoph Mayer (ETH Zurich), defended 2023
- Liang Han, defended 2022
- Sagnik Das, defended 2022
- Dongsheng An, defended 2022
- Huidong Liu, defended 2022
- Sarah Lehman (Temple University), defended 2022
- Tianyi Zhao, defended 2022
- Yang Guo, defended 2022

- Ke Ma, defended 2021
- Tong Liu (Temple University), defended 2021
- Ali Selman Aydin, defended 2021
- Ibrahim Hammoud, defended 2021
- Yizhe Zhu (Rutgers University), defended 2021
- Xin Qi, defended 2021
- Hieu Le, defended 2020
- Chengfeng Wen, defended 2020
- Tian Bai (Temple University), defended 2019
- Nan Li (Temple University), defended 2017
- Nianyi Li (University of Delaware), defended 2017
- Zhuo Deng (Temple University), defended 2016
- Chao Ma (Shanghai Jiaotong University), defended 2016
- Xueli Huang (Temple University), defended 2015
- Le Shu (Temple University), defended 2015
- Ralph Oyini Mbona (Temple University), defended 2014
- Geoff Oxholm (Drexel University), defended 2014
- Tianyang Ma (Temple University), defended 2013
- Li An (Temple University), defended 2012
- Xingwei Yang (Temple University), defended 2011
- Suzan Koknar-Tezel (Temple University), defended 2010
- Xue Mei (University of Maryland College Park), defended 2009

MS Committee Member

- Huy Anh Nguyen, defended 2023
- Ritvik Rawat, defended 2021
- Mingzhen Huang, defended 2021
- Bhuvnesh Kumar, defended 2020
- Bingyao Huang (Rowan University), defended 2015

PROFESSIONAL ACTIVITIES

Editorial Services

- Associate Editor, IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI), 2016 –
- Associate Editor, IEEE Trans. on Visualization and Computer Graphics (TVCG), 2022 –
- Associate Editor, Computer Vision and Image Understanding (CVIU), 2017 – 2023
- Associate Editor, Pattern Recognition (PR), 2015 – 2021
- Associate Editor, BMC Medical Informatics and Decision Making, 2016 – 2017
- Guest Editor, Computer Vision and Image Understanding, Special Issue-Advances in Deep Learning for Human-Centric Visual Understanding, 2023

- Guest Editor, Pattern Recognition, Special Issue on Deep Video Analysis: Models, Algorithms and Applications, 2020
- Guest Editor, Neurocomputing, Special Issue on Human Visual Saliency and Artificial Neural Attention in Deep Learning, 2019
- Guest Editor, Pattern Recognition, Special Issue on Open-Set Big Data Understanding: Theory and Applications, 2019
- Guest Editor, Pattern Recognition, Special Issue on Discriminative Feature Learning from Big Data for Visual Recognition, 2014

Conference Organizer/Senior Committee

- General Chair, Asian Conf. on Computer Vision (ACCV), 2028
- Area Chair, IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2014, 2016, 2019–2022, 2025
- Area Chair, International Conf. on Computer Vision (ICCV), 2023, 2025
- Area Chair, European Conf. on Computer Vision (ECCV), 2020, 2022, 2024
- Area Chair, ACM Multimedia (ACM MM), 2024
- Area Chair, IEEE Winter Conf. on Applications of Computer Vision (WACV), 2022
- Organizing Committee, International Workshop on Computer Vision for UAVs, in conjunction with ECCV, 2020
- Program Co-Chair, ICCV 2019 Workshop on Vision Meets Drone (VisDrone2019), 2019
- Program Co-Chair, ECCV 2018 Workshop on Vision Meets Drone (VisDrone2018), 2018
- Program Co-Chair, IEEE Workshop on Beyond the Visible Spectrum (PBVS), 2017
- Advisory Committee, IEEE Workshop on Beyond the Visible Spectrum (PBVS), 2018, 2019, 2020
- Poster Chair, the 3rd GNY Area Multimedia and Vision Meeting (GNY-MV), 2013
- Symposium Chair, Int'l Conf. on Computing, Networking and Communications (ICNC), 2013