

Bin Duan

Email: bduan2@hawk.iit.edu | [Homepage](#) | [Google Scholar](#)

EDUCATION

Illinois Institute of Technology

Ph.D. Candidate in Computer Science

Chicago, IL

Jan. 2021 - present

- Advisor: Dr. Yan Yan
- Concentration: Biomedical Image Analysis

Texas State University

Ph.D. Candidate in Computer Science

San Marcos, TX

Sep. 2019 - Dec. 2020

- Advisor: Dr. Yan Yan
- Concentration: Multi-Modal Learning

Lanzhou University

B.Eng. in Electrical Engineering

Lanzhou, China

Sep. 2013 - May 2017

EXPERIENCE

University of Michigan

Visiting Scholar of Cell & Developmental Biology

Ann Arbor, MI

June 2022 - July 2023

- Advisor: Dr. Dawen Cai
- Project: Neuron Tracing, Neuron Segmentation, and Biomedical Image Analysis

Texas State University

Visiting Scholar of Computer Science

San Marcos, TX

Feb. 2019 - Aug. 2019

- Advisor: Dr. Yan Yan
- Project: Cross-Modal Generation

PUBLICATIONS

- [1] [Bin Duan](#), Hao Tang, Changchang Sun, Ye Zhu, and Yan Yan. "Mining and Unifying Heterogeneous Contrastive Relations for Weakly-Supervised Actor-Action Segmentation." In IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV**), 2024.
- [2] [Bin Duan](#), Ming Zhong, and Yan Yan. "Towards Saner Deep Image Registration." In IEEE/CVF International Conference on Computer Vision (**ICCV**), 2023.
- [3] [Bin Duan](#), Jianfeng Cao, Wei Wang, Dawen Cai, and Yan Yan. "Cell Instance Segmentation Via Multi-Scale Non-Local Correlation." In IEEE International Symposium on Biomedical Imaging (**ISBI**), 2023.
- [4] [Bin Duan](#), Logan A Walker, Douglas H Roossien, Fred Y Shen, Dawen Cai, and Yan Yan. "Unsupervised Neural Tracing in Densely Labeled Multispectral Brainbow Images." In IEEE International Symposium on Biomedical Imaging (**ISBI**), 2021.
- [5] [Bin Duan](#), Hao Tang, Wei Wang, Ziliang Zong, Guowei Yang, and Yan Yan. "Audio-visual Event Localization via Recursive Fusion by Joint Co-attention." In IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV**), 2021.
- [6] [Bin Duan](#), Wei Wang, Hao Tang, Hugo Latapie, and Yan Yan. "Cascade Attention Guided Residue Learning GAN for Cross-modal Translation." In International Conference on Pattern Recognition (**ICPR**), 2021.
- [7] Bin Xie, Hao Tang, [Bin Duan](#), Dawen Cai, and Yan Yan. "MLP-GAN for Brain Vessel Image Segmentation." In IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**), 2023.
- [8] Yuzhang Shang, Dan Xu, [Bin Duan](#), Ziliang Zong, Liqiang Nie, and Yan Yan. "Lipschitz Continuity Retained Binary Neural Network." In European conference on computer vision (**ECCV**), 2022.
- [9] Keshav Bhandari, [Bin Duan](#), Gaowen Liu, Hugo Latapie, Ziliang Zong, and Yan Yan. "Learning Omnidirectional Flow in 360° Video via Siamese Representation." In European Conference on Computer Vision (**ECCV**), 2022.
- [10] Yuzhang Shang, [Bin Duan](#), Ziliang Zong, Liqiang Nie, and Yan Yan. "Win the Lottery Ticket via Fourier Analysis: Frequencies Guided Network Pruning." IEEE International Conference on Acoustics, Speech, and Signal Processing (**ICASSP**), 2022.
- [11] Yuzhang Shang, [Bin Duan](#), Ziliang Zong, Liqiang Nie, and Yan Yan. "Lipschitz Continuity Guided Knowledge Distillation." In IEEE/CVF International Conference on Computer Vision (**ICCV**), 2021.

- [1] [Bin Duan](#), Yuzhang Shang, Dawen Cai, and Yan Yan. “Online Multi-spectral Neuron Tracking.” Under Review.
- [2] [Bin Duan](#), Logan A Walker, Bin Xie, Wei Jie Lee, Alex Lin, Yan Yan, and Dawen Cai. “Non-linear Quantization and Automated Compression Artifact Minimization Facilitate Image Analysis with High Compression Ratio.” In Submission.
- [3] [Bin Duan](#), Keshav Bhandari, Gaowen Liu, and Yan Yan. “Optical Flow Estimation in 360 Videos: Dataset, Model and Application.” Arxiv preprint.

ACADEMIC ACTIVITIES

Reviewer for CVPR, ICCV, NeurIPS, ICML, ICLR, WACV, TOMM, CVIU, Neurocomputing, etc.

Teaching Assistant for CS4347 Machine Learning, Texas State University, 2020

Teaching Assistant for CS7312 Advanced Data Mining, Texas State University, 2020

TECHNICAL SKILLS

Programming Language: Python, Pytorch, Matlab, JAVA, C, SQL

Tools: Database (Mysql, Oracle), Hadoop, etc