

YUEQI DUAN

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ACADEMIC APPOINTMENTS

Department of Electronic Engineering, Tsinghua University Tenure-track Assistant Professor	Jan. 2022 - now
Computer Science Department, Stanford University Postdoctoral Researcher Advisor: Prof. Leonidas J. Guibas	Aug. 2019 - Aug. 2021

EDUCATION

Department of Automation, Tsinghua University Ph.D., Computer Vision and Pattern Recognition Thesis: Unsupervised Binary Visual Representation Learning Advisor: Prof. Jie Zhou and Prof. Jiwen Lu	Sep. 2014 - Jul. 2019
Department of Automation, Tsinghua University B.Eng., Automation	Sep. 2010 - Jul. 2014

PUBLICATIONS

Journal Papers

- [1] Z. Wang, H. Xiao, **Y. Duan**, J. Zhou, and J. Lu, Learning Deep Binary Descriptors via Bitwise Interaction Mining, *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 45, no. 8, pp. 1919-1933, 2023.
- [2] A. Tao, **Y. Duan**, Y. Wei, J. Lu, and J. Zhou, SegGroup: Seg-Level Supervision for 3D Instance and Semantic Segmentation, *IEEE Trans. on Image Processing (TIP)*, vol. 31, pp. 4952-4965, 2022.
- [3] H. Sun, W. Li, **Y. Duan**, J. Zhou, and J. Lu, Learning Adaptive Patch Generators for Mask-Robust Image Inpainting, *IEEE Trans. on Multimedia (TMM)*, 2022, accepted.
- [4] **Y. Duan**, J. Lu, W. Zheng, and J. Zhou, Deep Adversarial Metric Learning, *IEEE Trans. on Image Processing (TIP)*, vol. 29, pp. 2037-2051, 2020.
- [5] **Y. Duan**, J. Lu, Z. Wang, J. Feng, and J. Zhou, Learning Deep Binary Descriptor with Multi-Quantization, *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 41, no. 8, pp. 1924-1938, 2019.
- [6] **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Context-Aware Local Binary Feature Learning for Face Recognition, *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 40, no. 5, pp. 1139-1153, 2018. (Highly Cited Paper and Hot Paper by ESI).
- [7] **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Topology Preserving Structural Matching for Automatic Partial Face Recognition, *IEEE Trans. on Information Forensics and Security (TIFS)*, vol. 13, no. 7, pp. 1823-1837, 2018.
- [8] **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Learning Rotation-Invariant Local Binary Descriptor, *IEEE Trans. on Image Processing (TIP)*, vol. 26, no. 8, pp. 3636-3651, 2017.
- [9] **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Deep Localized Metric Learning, *IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)*, vol. 28, no. 10, pp. 2644-2656, 2017.

Conference Papers

- [1] F. Tian, S. Du, and **Y. Duan**, MonoNeRF: Learning a Generalizable Dynamic Radiance Field from Monocular Videos, *IEEE International Conf. on Computer Vision (ICCV)*, 2023.
- [2] F. Liu, C. Zhang, Y. Zheng, and **Y. Duan**, Semantic Ray: Learning a Generalizable Semantic Field with Cross-Reprojection Attention, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2023.
- [3] M. Li, **Y. Duan**, J. Zhou, and Jiwen Lu, Diffusion-SDF: Text-to-shape via Voxelized Diffusion, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2023.
- [4] R. Zhang, S. Wang, **Y. Duan**, Y. Tang, Y. Zhang, and Y. Tan, HOI-aware Adaptive Network for Weakly-supervised Action Segmentation, *International Joint Conf. on Artificial Intelligence (IJCAI)*, 2023.
- [5] F. Liu, W. Ma, A. Zhang, X. Wang, **Y. Duan**, and T. Chua, Discovering Dynamic Causal Space for DAG Structure Learning, *SIGKDD Conf. on Knowledge Discovery and Data Mining (KDD)*, 2023.
- [6] X. Feng, H. Du, H. Fan, **Y. Duan**, and Y. Liu, SEFormer: Structure Embedding Transformer for 3D Object Detection, *AAAI Conf. on Artificial Intelligence (AAAI)*, 2023.
- [7] Y. Zheng, **Y. Duan**, J. Lu, J. Zhou, and Q. Tian, HyperDet3D: Learning a Scene-Conditioned 3D Object Detector, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2022. (Oral).
- [8] M. Li, L. Chen, **Y. Duan**, Z. Hu, J. Feng, J. Zhou, and J. Lu, Bridge-Prompt: Towards Ordinal Action Understanding in Instructional Videos, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2022.
- [9] S. Wang, **Y. Duan**, H. Ding, Y. Tan, K. Yap, and J. Yuan, Learning Transferable Human-Object Interaction Detector With Natural Language Supervision, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2022.
- [10] L. Chen, M. Li, **Y. Duan**, J. Zhou, and J. Lu, Uncertainty-Aware Representation Learning for Action Segmentation, *International Joint Conf. on Artificial Intelligence (IJCAI)*, 2022.
- [11] S. Shen, W. Li, Z. Zhu, **Y. Duan**, J. Zhou, and J. Lu, Learning Dynamic Facial Radiance Fields for Few-Shot Talking Head Synthesis, *European Conf. on Computer Vision (ECCV)*, 2022.
- [12] C. Pan, Y. Yang, K. Mo, **Y. Duan**, and L. J. Guibas, Object Pursuit: Building a Space of Objects via Discriminative Weight Generation, *International Conf. on Learning Representations (ICLR)*, 2022.
- [13] C. Deng, O. Litany, **Y. Duan**, A. Poulenard, A. Tagliasacchi, and L. J. Guibas, Vector Neurons: A General Framework for SO (3)-Equivariant Networks, *IEEE International Conf. on Computer Vision (ICCV)*, 2021. (Oral).
- [14] Y. Weng, H. Wang, Q. Zhou, Y. Qin, **Y. Duan**, Q. Fan, B. Chen, H. Su, L. J. Guibas, CAPTRA: CAtegory-level Pose Tracking for Rigid and Articulated Objects from Point Clouds, *IEEE International Conf. on Computer Vision (ICCV)*, 2021. (Oral).
- [15] **Y. Duan**^{*}, H. Zhu^{*}, H. Wang, L. Yi, R. Nevatia, and L. J. Guibas, Curriculum DeepSDF, *European Conf. on Computer Vision (ECCV)*, 2020.
- [16] W. Li, **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Graph-Based Social Relation Reasoning, *European Conf. on Computer Vision (ECCV)*, 2020.
- [17] **Y. Duan**, Y. Zheng, J. Lu, J. Zhou, and Q. Tian, Structural Relational Reasoning of Point Clouds, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- [18] **Y. Duan**, J. Lu, and J. Zhou, UniformFace: Learning Deep Equidistributed Representation for Face Recognition, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- [19] **Y. Duan**, L. Chen, J. Lu, and J. Zhou, Deep Embedding Learning with Discriminative Sampling Policy, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- [20] **Y. Duan**, W. Zheng, X. Lin, J. Lu, and J. Zhou, Deep Adversarial Metric Learning, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2018. (Spotlight).
- [21] **Y. Duan**, Z. Wang, J. Lu, X. Lin, and J. Zhou, GraphBit: Bitwise Interaction Mining via Deep Reinforcement Learning, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2018.

- [22] X. Lin, **Y. Duan**, Q. Dong, J. Lu, and J. Zhou, Deep Variational Metric Learning, *European Conf. on Computer Vision (ECCV)*, 2018.
- [23] **Y. Duan**, J. Lu, Z. Wang, J. Feng, and J. Zhou, Learning Deep Binary Descriptor with Multi-Quantization, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2017.
- [24] **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Topology Preserving Graph Matching for Partial Face Recognition, *IEEE International Conf. on Multimedia and Expo (ICME)*, 2017. (**Oral**).

PROFESSIONAL ACTIVITIES

Publication Chair

- IEEE International Conference on Automatic Face and Gesture Recognition (FG), 2023

Area Chair

- IEEE International Conference on Multimedia and Expo (ICME), 2020-2022

Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Information Forensics and Security (TIFS)
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- IEEE International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- International Conference on Machine Learning (ICML)
- Neural Information Processing Systems (NeurIPS)
- ACM SIGGRAPH
- AAAI Conference on Artificial Intelligence (AAAI)

AWARDS

- Excellent Doctoral Dissertation of Chinese Association for Artificial Intelligence (CAAI), 2020
- Excellent Ph.D. Graduate of Beijing and Tsinghua University, 2019
- Excellent Doctoral Dissertation of Tsinghua University, 2019
- National Scholarship, Tsinghua University, 2017, 2018
- Outstanding Reviewer Award of ICME, 2018
- Outstanding Scholar, Department of Automation, Tsinghua University, 2017