

# YUEQI DUAN

Tenure-track Assistant Professor, Department of Electronic Engineering, Tsinghua University  
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## ACADEMIC APPOINTMENTS

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**Department of Electronic Engineering, Tsinghua University** Jan. 2022 - now  
Tenure-track Assistant Professor

**Computer Science Department, Stanford University** Aug. 2019 - Aug. 2021  
Postdoctoral Researcher  
Advisor: Prof. Leonidas J. Guibas

## EDUCATION

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

**Department of Automation, Tsinghua University** Sep. 2010 - Jul. 2014  
B.Eng., Automation

## PUBLICATIONS

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### Journal Papers

- [1] **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.
- [2] **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.
- [3] **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).
- [4] **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.
- [5] **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.
- [6] **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] 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, accepted.
- [2] C. Deng, O. Litany, **Y. Duan**, A. Poulencard, A. Tagliasacchi, and L. J. Guibas, Vector Neurons: A General Framework for SO (3)-Equivariant Networks, *IEEE International Conf. on Computer Vision (ICCV)*, pp. 12200-12209, 2021. (**Oral**).
- [3] 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)*, pp. 13209-13218, 2021. (**Oral**).

- [4] **Y. Duan\***, H. Zhu\*, H. Wang, L. Yi, R. Nevatia, and L. J. Guibas, Curriculum DeepSDF, *European Conf. on Computer Vision (ECCV)*, pp. 51-67, 2020.
- [5] W Li, **Y. Duan**, J. Lu, J. Feng, and J. Zhou, Graph-Based Social Relation Reasoning, *European Conf. on Computer Vision (ECCV)*, pp. 18-34, 2020.
- [6] **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)*, pp. 949-958, 2019.
- [7] **Y. Duan**, J. Lu, and J. Zhou, UniformFace: Learning Deep Equidistributed Representation for Face Recognition, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, pp. 3415-3424, 2019.
- [8] **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)*, pp. 4964-4973, 2019.
- [9] **Y. Duan**, W. Zheng, X. Lin, J. Lu, and J. Zhou, Deep Adversarial Metric Learning, *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, pp. 2780-2789, 2018. (**Spotlight**).
- [10] **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)*, pp. 8270-8279, 2018.
- [11] X. Lin, **Y. Duan**, Q. Dong, J. Lu, and J. Zhou, Deep Variational Metric Learning, *European Conf. on Computer Vision (ECCV)*, pp. 689-704, 2018.
- [12] **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)*, pp. 4857-4866, 2017.
- [13] **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)*, pp. 1494-1499, 2017. (**Oral**).

## TEACHING EXPERIENCE

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### Computer Science Department

*Teaching Assistant*

2020, 2021 Spring Quarter

*Stanford University*

- Teaching assistant for the *CS233/CME251: Geometric and Topological Data Analysis* course.
- Held regular office hours, lectures on the topic of Non-linear Dimensionality Reduction and exam review sessions.

### Department of Automation

*Teaching Assistant*

2015, 2016, 2017 Fall Semester

*Tsinghua University*

- Teaching assistant for the *Numerical Analysis* course, which is required by all undergraduates in the Department of Automation.
- Held regular office hours, exercise classes and exam review sessions.

## PROFESSIONAL ACTIVITIES

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### 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**

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- 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