Qi Qian

Curriculum Vitae

205 108th Ave NE, Suite 400
Bellevue, WA, 98004
qi.qian@alibaba-inc.com
qi-qian.com
Team Github: idstcv

Education

2012.01–2015.08 **Ph.D., Computer Science**, *Michigan State University*, East Lansing, MI.
Supervisor: Prof. Rong Jin
Thesis: *Large-scale High Dimensional Distance Metric Learning and Its Application to Computer Vision*

2008.09–2011.06 **M.Sc., Computer Science**, *LAMDA, Nanjing University*, Nanjing, China.
Advisors: Prof. Zhi-Hua Zhou
Thesis: *Research on Cost-sensitive Active Learning and Multi-class Imbalance Learning*

2004.09–2008.06 **B.Sc., Computer Science**, *Nanjing University*, Nanjing, China.

Employment

2018.10–Present **Staff Engineer (Team Lead)**, *Machine Intelligence, DAMO Academy, Alibaba Group*, Bellevue, WA.

2017.07–2018.10 **Staff Engineer**, *Machine Intelligence, DAMO Academy, Alibaba Group*, Bellevue, WA.

2015.08–2017.07 **Senior Engineer**, *Institute of Data Science of Technologies (iDST), Alibaba Group*, Bellevue, WA.

2014.05–2014.08 **Research Intern**, *NEC Laboratories America*, Cuptertino, CA.

2013.05–2013.08 **Research Intern**, *NEC Laboratories America*, Cuptertino, CA.

Research Interests

Machine Learning distance metric learning, multiple clustering, online learning and deep learning

Computer Vision representation learning, fine-grained visual categorization, and object detection

Selected Publications

[22] Qi Qian, Yuanhong Xu, Juhua Hu. **Intra-Modal Proxy Learning for Zero-Shot Visual Categorization with CLIP**. Conference on Neural Information Processing Systems (NeurIPS), 2023.

[21] Qi Qian. **Stable Cluster Discrimination for Deep Clustering**. IEEE/CVF International Conference on Computer Vision (ICCV), 2023.

[20] Junyang Wang, Yuanhong Xu, Juhua Hu, Ming Yan, Jitao Sang, Qi Qian. **Improved Visual Fine-tuning with Natural Language Supervision**. IEEE/CVF International Conference on Computer Vision (ICCV), 2023.

[19] Qinghao Ye, Guohai Xu, Ming Yan, Haiyang Xu, Qi Qian, Ji Zhang, Fei Huang. **HiTeA: Hierarchical Temporal-Aware Video-Language Pre-training**. IEEE/CVF International Conference on Computer Vision (ICCV), 2023.

[18] Ziquan Liu, Yi Xu, Yuanhong Xu, Qi Qian, Hao Li, Xiangyang Ji, Antoni Chan, Rong Jin. **Improved Fine-Tuning by Better Leveraging Pre-Training Data**. Conference on Neural Information Processing Systems (NeurIPS), 2022.

[17] Qi Qian, Yuanhong Xu, Juhua Hu, Hao Li and Rong Jin. **Unsupervised Visual Representation Learning by Online Constrained K-Means**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

[16] Qi Qian, Hao Li, and Juhua Hu. **Improved Knowledge Distillation via Full Kernel Matrix Transfer**. SIAM International Conference on Data Mining (SDM), 2022.

[15] Yi Xu, Lei Shang, Jinxing Ye, Qi Qian, Yu-Feng Li, Baigui Sun, Hao Li and Rong Jin. **Dash: Semi-supervised Learning with Dynamic Thresholding**. International Conference on Machine Learning (ICML), 2021

[14] Yuanhong Xu, Qi Qian, Hao Li, Rong Jin and Juhua Hu. **Weakly Supervised Representation Learning with Coarse Labels**. IEEE/CVF International Conference on Computer Vision (ICCV), 2021.

[13] Qiang Zhou, Chaohui Yu, Zhibin Wang, Qi Qian and Hao Li. **Instant-teaching: An End-to-end Semi-supervised Object Detection Framework**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021.

[12] Qi Qian, Juhua Hu and Hao Li. **Hierarchically Robust Representation Learning**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2020.

[11] Qi Qian, Lei Chen, Hao Li and Rong Jin. **DR Loss: Improving Object Detection by Distributional Ranking**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2020.

[10] Qi Qian, Shenghuo Zhu, Jiasheng Tang, Rong Jin, Baigui Sun and Hao Li. **Robust Optimization over Multiple Domains**. AAAI Conference on Artificial Intelligence (AAAI), 2019.

[9] Zhiyu Tan, Xuecheng Nie, Qi Qian, Nan Li and Hao Li. **Learning to Rank Proposals for Object Detection**. IEEE/CVF International Conference on Computer Vision (ICCV), 2019.

[8] Qi Qian, Lei Shang, Baigui Sun, Juhua Hu, Hao Li and Rong Jin. **SoftTriple Loss: Deep Metric Learning Without Triplet Sampling**. IEEE/CVF International Conference on Computer Vision (ICCV), 2019.

[7] Qi Qian, Jiasheng Tang, Hao Li, Shenghuo Zhu and Rong Jin. **Large-scale Distance Metric Learning with Uncertainty**. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018.

[6] Gang Liu, Qi Qian, Zhibin Wang, Qingen Zhao, Tianzhou Wang, Hao Li, Jian Xue, Shenghuo Zhu, Rong Jin and Tuo Zhao. **The Opensesame NIST 2016 Speaker Recognition Evaluation System**. INTERSPEECH, 2017.

[5] Qi Qian, Rong Jin, Jinfeng Yi, Lijun Zhang and Shenghuo Zhu. **Efficient Distance Metric Learning by Adaptive Sampling and Mini-Batch Stochastic Gradient Descent (SGD)**. Machine Learning Journal (MLJ), 99: 353–372, 2015.

[4] Juhua Hu, Qi Qian, Jian Pei, Rong Jin and Shenghuo Zhu. **Finding Multiple Stable Clusterings**. IEEE International Conference on Data Mining (ICDM), 2015.

[3] Qi Qian, Rong Jin, Shenghuo Zhu and Yuanqing Lin. **Fine-grained Visual Categorization via Multi-stage Metric Learning**. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015.

[2] Qi Qian, Juhua Hu, Rong Jin, Jian Pei and Shenghuo Zhu. **Distance Metric Learning Using Dropout: A Structured Regularization Approach**. ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2014.

[1] Jinfeng Yi, Lijun Zhang, Rong Jin, Qi Qian and Anil Jain. **Semi-supervised Clustering by Input Pattern Assisted Pairwise Similarity Matrix Completion**. International conference on machine learning (ICML), 2013.

Honors and Awards

2015 **Best Paper Candidate**, *ICDM'15*.
- Finding Multiple Stable Clusterings

2013 **The Spot Recognition Award**, *NEC Laboratories America*.

2003 **The 2nd Prize of National Mathematical Contest**.

Professional Services

International Program Committee Member

CVPR **IEEE/CVF Conference on Computer Vision and Pattern Recognition**, *2023, 2022, 2021, 2020*.

ICCV **IEEE/CVF International Conference on Computer Vision**, *2023, 2021, 2019*.

ECCV **European Conference on Computer Vision**, *2022*.

ICML **The International Conference on Machine Learning**, *2023, 2022, 2021, 2018*.

NeurIPS **The Conference on Neural Information Processing Systems**, *2023, 2022, 2020, 2019, 2018*.

ICLR **The International Conference on Learning Representations**, *2020, 2019*.

KDD **ACM SIGKDD Conference on Knowledge Discovery and Data Mining**, *2023, 2022*.

AAAI **The AAAI Conference on Artificial Intelligence**, *2021, 2020, 2019*.

IJCAI **The International Joint Conference on Artificial Intelligence**, *2023, 2022, 2021 (Senior PC), 2020, 2019*.

Journal Reviewer

TPAMI	**IEEE Transactions on Pattern Analysis and Machine Intelligence**.
TKDD	**ACM Transactions on Knowledge Discovery from Data**.
TIP	**IEEE Transactions on Image Processing**.
TMM	**IEEE Transactions on Multimedia**.
NEUCOM	**Neurocomputing**.
TBD	**IEEE Transactions on Big Data**.