Fengchun Qiao

Ph.D. Student, University of Delaware

18 Amstel Avenue, Smith Hall 208, Newark, DE 19716

+1 (302) 867-8870 | fengchun@udel.edu | joffery.github.io/joffery/ | Fengchun Qiao

Research Interests

My research interests are machine learning, deep learning, and computer vision. Currently, I focus on developing robust and explainable methods for Out-of-Distribution (OOD) generalization.

Education

University of Delaware   *Newark, DE, USA*

Ph.D. in Computer Science   *February 2020 - Present*

Institute of Software, Chinese Academy of Sciences   *Beijing, China*

M.S. in Computer Science   *June 2019*

Beijing Forestry University   *Beijing, China*

B.Eng. in Electronic and Information Technology (GPA: 90.8/100, Ranking: 1/52)   *June 2016*

Experience

Deep-REAL Lab, University of Delaware   *Newark, DE USA*

Research Assistant. Advised by Prof. Xi Peng   *September 2022 - Present*

- Single Domain Generalization [**CVPR'20, CVPR'21, TPAMI'22**]
- Topology-aware Out-of-Distribution Generalization [**NeurIPS Workshop on Distribution Shifts '22**]

Amazon Web Services (AWS) AI Labs   *Remote*

Applied Scientist Intern. Advised by Dr. Gukyeong Kwon   *June 2021 - August 2021*

- Probabilistic Models for Cross-Modal Retrieval

Institute of Software, Chinese Academy of Sciences   *Beijing, China*

Research Assistant. Advised by Prof. Hui Chen   *September 2016 - June 2019*

- GAN-based Facial Expression Synthesis [**CASA'18**]
- Robust Facial Expression Recognition [**ACII Asia'18, Acta Automatica Sinica'18**]

Publications

Conference Proceedings

C4. **F. Qiao** and X. Peng. "Graph-Relational Distributionally Robust Optimization." In *NeurIPS 2022 Workshop on Distribution Shifts*, .

C3. **F. Qiao** and X. Peng. "Uncertainty-guided model generalization to unseen domains." In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

C2. **F. Qiao**, L. Zhao, and X. Peng. "Learning to learn single domain generalization." In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.

C1. Z. Jiao, **F. Qiao**, N. Yao, Z. Li, H. Chen, and H. Wang. "An Ensemble of VGG Networks for Video-Based Facial Expression Recognition." In *2018 First Asian Conference on Affective Computing and Intelligent Interaction (ACII Asia)*, 2018.

Journals

J3. X. Peng, **F. Qiao**, and L. Zhao. "Out-of-Domain Generalization From a Single Source: An Uncertainty Quantification Approach." *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, IEEE, 2022.

J2. **F. Qiao**, N. Yao, Z. Jiao, Z. Li, H. Chen, and H. Wang. "Emotional facial expression transfer from a single image via generative adversarial nets." *Computer Animation and Virtual Worlds (CASA)*, Wiley Online Library, 2018.

J1. N. Yao, Q. Guo, **F. Qiao**, H. Chen, and H. Wang. "Robust facial expression recognition with GANs." *Acta Automatica Sinica*, 2018.

Technical Reports

T1.   **F. Qiao**, N. Yao, Z. Jiao, Z. Li, H. Chen, and H. Wang. "Geometry-contrastive gan for facial expression transfer." *arXiv*, 2018.

Professional Services

Conference reviewer/Program committee

- ICML 2022, NeurIPS 2022, AAAI 2023

Journal Reviewer

- TIP/TMM/CVIU/TCSVT/TIM

Honors & Awards

2022	**NeurIPS 2022 Top Reviewer Award**
2022	**Outstanding Graduate Student Award**, University of Delaware
2021	**Distinguished Graduate Student Award**, University of Delaware
2018	**National Scholarship for Graduate Students**, Ministry Of Education of the People's Republic of China
2017	**CIKM AnalytiCup 2017 (Ranking: 4/1395)**
2017	**KDD CUP 2017 (Ranking: 16/3582)**