

# Taihong Xiao

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## Education

Ph.D. student, Computer Science, University of California at Merced, 2018-present (GPA: 4.0/4.0)

M.S. Applied Mathematics, School of Mathematical Sciences, Peking University, 2015-2018

B.S. Mathematics, Taishan College, Shandong University, 2011-2015

## Research Experience

1. Research Intern, [NVIDIA Research](#), Santa Clara, May, 2020 - present  
• Self-Supervised General Correspondence Learning  
Mentor: [Sifei Liu](#)
2. Research Assistant, UC Merced, Aug. 2018 - present  
• Privacy-Preserving Learning Representations  
• Unsupervised Learning of Optical Flow  
Advisor: [Ming-Hsuan Yang](#)
3. Research Intern, [Google AI](#), Mountain View, May - Aug., 2019  
• Unsupervised Learning of Optical Flow  
Host: [Jinwei Yuan](#)
4. Research Intern, [Momenta](#), Beijing, Jun. - Aug., 2018  
• Domain Adaptation in Object Detection  
Advisor: Chaoqun Weng
5. Research Intern, [Megvii \(Face++\)](#), Beijing, Jan. - Nov., 2017  
• Face Attributes Transfiguration  
• Quantized Neural Networks  
Advisor: [Shuchang Zhou](#)
6. Research Assistant, Peking University, Jan. 2016 - May, 2018  
• Multiple Face Attribute Transfer  
• Disentangled Representations  
• Pedestrian Tracking  
Advisor: [Jinwen Ma](#)

## Publications ([Google Scholar](#))

1. Learnable Cost Volume Using the Cayley Representation  
**Taihong Xiao**, Jinwei Yuan, Deqing Sun, Qifei Wang, Xin-Yu Zhang, Kehan Xu, Ming-Hsuan Yang  
*Proceedings of the European Conference on Computer Vision (ECCV)*, 2020  
[\[ArXiv\]](#)
2. Adversarial Learning of Privacy-Preserving and Task-Oriented Representations  
**Taihong Xiao**, Yi-Hsuan Tsai, Kihyuk Sohn, Manmohan Chandraker, Ming-Hsuan Yang  
*Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI)*, 2020  
[\[ArXiv\]](#)

3. ELEGANT: Exchanging Latent Encodings with GAN for Transferring Multiple Face Attributes  
**Taihong Xiao**, Jiapeng Hong, Jinwen Ma  
*Proceedings of the European Conference on Computer Vision (ECCV)*, 172–187, 2018  
[\[Paper\]](#) [\[ArXiv\]](#) [\[Poster\]](#) [\[GitHub\]](#)
4. DNA-GAN: Learning Disentangled Representations from Multi-Attribute Images  
**Taihong Xiao**, Jiapeng Hong, Jinwen Ma  
*International Conference on Learning Representations Workshop (ICLR)*, 2018  
[\[Paper\]](#) [\[ArXiv\]](#) [\[Poster\]](#) [\[GitHub\]](#)
5. GeneGAN: Learning Object Transfiguration and Attribute Subspace from Unpaired Data  
 Shuchang Zhou, **Taihong Xiao**, Yi Yang, Dieqiao Feng, Qinyao He, Weiran He  
*Proceedings of the British Machine Vision Conference (BMVC)*, 2017 (**Oral Presentation**)  
[\[Paper\]](#) [\[ArXiv\]](#) [\[Slide\]](#) [\[GitHub\]](#)
6. IQNN: Training Quantized Neural Networks with Iterative Optimizations  
 Shuchang Zhou, He Wen, **Taihong Xiao**, Xinyu Zhou  
*International Conference on Artificial Neural Networks (ICANN)*, 688-695, 2017  
[\[Paper\]](#)
7. An Integrated Learning Framework for Pedestrian Tracking  
**Taihong Xiao**, Jinwen Ma  
*International Conference on Intelligent Computing (ICIC)*, 95-106, 2017 (**Oral Presentation**)  
[\[Paper\]](#) [\[Slide\]](#) [\[Video\]](#) [\[GitHub\]](#)

## Open Source Projects ([GitHub](#))

1. **Wechat\_AutoJump** (1.3k Star)  
 AI plays WeChat Jump Game  
[\[GitHub\]](#) [\[Zhihu\]](#) [\[Media\]](#)
2. **3D-GAN-pytorch**  
 Pytorch implementation of 3D-GAN  
[\[GitHub\]](#) [\[Paper\]](#)
3. **Adversarial\_Reprogramming**  
 Adversarial Reprogramming of Neural Networks  
[\[GitHub\]](#) [\[Paper\]](#)

## Teaching & Services

1. Conference Reviewer, CVPR, ICCV, ECCV, NeurIPS, AAAI, WACV, BMVC, AVSS
2. Journal Reviewer, TIP
3. Teaching Assistant, CSE 185 Introduction to Computer Vision, Spring 2020
4. Teaching Assistant, CSE 015 Discrete Math, UC Merced, Spring and Fall 2019
5. Teaching Assistant, CSE 140 Computer Architecture, UC Merced, Fall 2018
6. Teaching Assistant, Advanced Math B, Peking University, Fall 2016
7. Teaching Assistant, Mathematical Analysis I, Shandong University, Fall 2014

## Honors & Awards

1. GSA Conference Travels Award, UC Merced, 2020
2. ICLR Travel Award, 2018
3. National Scholarship, Peking University, 2015, 2016, 2017
4. Excellent Academic Performance Award, Peking University, 2016
5. Outstanding Thesis Award in Shandong Province, 2015
6. National Encouragement Scholarship, Shandong University, 2013