PEI WANG

Email: pew062@eng.ucsd.edu | Phone: 7605575802 | [Homepage](#) | [Google Scholar](#)

RESEARCH INTERESTS AND ACHIEVEMENTS

Eleven peer-review publications (9 first-author, 2 oral, 1 best paper candidate) on top computer vision conferences across a broad area including Explainable AI, Machine teaching, Human-centered machine learning, Weakly (semi) supervised object detection, Image synthesis, Domain adaptation, Failure prediction.

EDUCATION

Ph.D candidate in Machine Learning & Data Science *09/2017-12/2022 (expected)*
Electrical and Computer Engineering, University of California, San Diego, USA
Advisor: Nuno Vasconcelos   GPA: 3.8/4.0
Committee members: David Kriegman, Xiaolong Wang, Bhaskar Rao, Truong Nguyen
Master of Science in Pattern Recognition & Intelligent System *09/2014-06/2017*
National Laboratory of Pattern Recognition (NLPR), Chinese Academy of Sciences, Beijing, China
Advisor: Weiming Hu, Chunfeng Yuan   GPA: 3.8/4.0
Bachelor of Engineering in Measurement Control Technology & Instrument *09/2010-06/2014*
University of Electronic Science and Technology of China, Chengdu, China   GPA: 4.0/4.0

WORKING EXPERIENCE

Applied Scientist Intern at AWS, Amazon *summer/2021*
Collaborators: Zhaowei Cai, Hao Yang, Gurumurthy Swaminathan, Pietro Perona, Bernt Schiele, Stefano Soatto
Goals and deliverables: developed a universal object detection method.

Researcher Scientist Intern at Creative Intelligence Lab, Adobe Research *summer/2020*
Collaborators: Yijun Li, Cynthia Lu, Krishna Kumar Singh
Goals and deliverables: developed an image synthesis method by model inversion.

PUBLICATIONS

· **Pei Wang**, Zhaowei Cai, Hao Yang, Gurumurthy Swaminathan, Nuno Vasconcelos, Bernt Schiele, Stefano Soatto. *Omni-DETR: Omni-Supervised Object Detection with Transformers.* CVPR, 2022
· **Pei Wang**, Nuno Vasconcelos. *A Machine Teaching Framework for Scalable Recognition.* ICCV, 2021
· **Pei Wang**, Kabir Nagrecha, Nuno Vasconcelos. *Gradient-based Algorithms for Machine Teaching.* CVPR, 2021
· **Pei Wang**, Yijun Li, Nuno Vasconcelos. *Rethinking and Improving the Robustness of Image Style Transfer.* CVPR, 2021 (**Oral Presentation, Best Paper Candidate**)
· **Pei Wang**, Yijun Li, Krishna Kumar Singh, Cynthia Lu, Nuno Vasconcelos. *IMAGINE: Image Synthesis by Image-Guided Model Inversion.* CVPR, 2021
· Yunsheng Li, Lu Yuan, Yinpeng Chen, **Pei Wang**, Nuno Vasconcelos. *Dynamic Transfer for Multi-Source Domain Adaptation.* CVPR, 2021

- Tz-Ying Wu, Pedro Morgado, **Pei Wang**, Chih-Hui Ho, Nuno Vasconcelos. *Solving Long-tailed Recognition with Deep Realistic Taxonomic Classifier.* ECCV, 2020
- **Pei Wang**, Nuno Vasconcelos. *SCOUT: Self-aware Discriminant Counterfactual Explanations.* CVPR, 2020
- **Pei Wang**, Nuno Vasconcelos. *Deliberative Explanations: visualizing network insecurities.* NeurIPS, 2019
- **Pei Wang**, Nuno Vasconcelos. *Towards Realistic Predictors.* ECCV, 2018 (**Oral Presentation**)
- Weiming Hu, Baoxin Wu, **Pei Wang**, Chunfeng Yuan, Stephen Maybank. *Context-Dependent Random Walk Graph kernels and Tree Pattern Graph Matching Kernels with Application to Action Recognition.* IEEE Transactions on Image Processing (T-IP), 2018
- **Pei Wang**, Chunfeng Yuan, Weiming Hu, Bing Li, Yanning Zhang. *Graph Based Skeleton Motion Representation and Similarity Measurement for Action Recognition.* ECCV, 2016

TECHNICAL STRENGTHS

Computer Language	Python.
Tools	Visual Studio, PyCharm, Amazon Turk.
Deep Learning Framework	TensorFlow, PyTorch.

ACADEMIC SERVICE

Conference and Journal Reviewer	CVPR21 (Outstanding reviewer), CVPR20,19, ICCV19,21, ECCV20, NeurIPS20,21, ICLR22 ICML21,22, T-PAMI20,21,22
Teaching Assistant	ECE271A (Statistical Learning), Fall19,20 ECE271B (Machine Learning), Winter19 ECE271C (Deep Learning), Spring20,21 ECE175A (Elements of Machine Intelligence), Winter22

TALKS

· Invited talk at Amazon	*remotely, 2021*
· Oral Presentation at CVPR2021	*remotely, 2021*
· Invited talk at Adobe	*remotely, 2020*
· Oral Presentation at ECCV2018	*Munich, Germany, 2018*
· Invited talk at NRI2018	*Washington D.C., United States, 2018*

HONORS & AWARDS

· ECE Department Fellowship of UCSD	*2017*
· Excellent Students Awards of University of Chinese Academy of Sciences	*2017*
· Graduate Scholarship of University of Chinese Academy of Sciences	*2014-2016*
· Outstanding Graduating Students of University of Electronic Science and Technology of China	*2014*
· National Scholarship (Top 2%)	*2012&2013*