

Jiacong Xu

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Baltimore, Maryland
United States, 21218

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RESEARCH INTERESTS Computer Vision and Graphics, Vision Language Model

EDUCATION **Johns Hopkins University** Jan. 2023 - Present
Department of Computer Science
Ph.D. in Computer Science
Advisor: Prof. Vishal M. Patel

Texas A&M University Sep. 2019 - Dec. 2021
Department of Computer and Electrical Engineering
M.Sci. in Electrical Engineering
Advisor: Prof. Shankar P. Bhattacharyya

University of Sci. & Tech. of China Sep. 2015 - May. 2019
B.Eng. in Mechanical Engineering

PUBLICATIONS **Selected Publications**

1. Towards Zero-Shot Anomaly Detection and Reasoning with Multimodal Large Language Models
Jiacong Xu, Shao-Yuan Lo, Bardia Safaei, Vishal M. Patel, Isht Dwivedi
CVPR, Highlight, 2025
2. Filter Images First, Generate Instructions Later: Pre-Instruction Data Selection for Visual Instruction Tuning
Bardia Safaei, Faizan Siddiqui, Jiacong Xu, Vishal M. Patel, Shao-Yuan Lo
CVPR, Highlight, 2025
3. XYScanNet: An Interpretable State Space Model for Perceptual Image Deblurring
Hanzhou Liu, Chengkai Liu, Jiacong Xu, Peng Jiang, Mi Lu
CVPRW, 2025
4. Wild-GS: Real-Time Novel View Synthesis from Unconstrained Photo Collections
Jiacong Xu, Yiqun Mei, Vishal M. Patel
NeurIPS, 2024
5. Reference-based Controllable Scene Stylization with Gaussian Splatting
Yiqun Mei*, Jiacong Xu*, Vishal M. Patel (* Equal Contribution)
NeurIPS, 2024
6. Leveraging Thermal Modality to Enhance Reconstruction in Low-Light Conditions
Jiacong Xu, Mingqian Liao, Ram Prabhakar, Vishal M. Patel
ECCV, 2024

7. Animal3D: A Comprehensive Dataset of 3D Animal Pose and Shape
 Jiacong Xu, Yi Zhang, ..., Adam Kortylewski, Alan Yuille
ICCV, 2023
8. PIDNet: A Real-Time Semantic Segmentation Network Inspired by PID Controllers
 Jiacong Xu, Zixiang Xiong, Shankar P Bhattacharyya
CVPR, 2023
9. Communication-Efficient Design of Learning System for Energy Demand Forecasting of Electrical Vehicles
 Jiacong Xu, Riley Kilfoyle, Zixiang Xiong, Ligang Lu
APSIPA ASC, 2023

EXPERIENCE	Honda Research Institute (HRI)	
	Research Intern Mentors: Dr. Isht Dwivedi and Dr. Shao-Yuan Lo	5/2024 – 8/2024
	CCVL in JHU	
	Research Intern Mentors: Dr. Adam Kortylewski	8/2022 – 1/2023
RELEVANT SKILLS	Technical: C/C++, Python, Verilog HDL, MATLAB, LabVIEW, JavaScript Languages: English (fluent), Mandarin (native)	
COURSEWORK	Selected Courses ☐ Computer Vision ☐ Mathematical Statistics ☐ Computer Graphics ☐ Stochastic Process ☐ Nature Language Processing ☐ Equation of Mathematical Physics ☐ Deep Learning ☐ Function of Complex Variable	