

Xin Lin

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Education

Sichuan University

B.Eng. in Electronics and Information Engineering

University of California San Diego

Ph.D. in Electrical and Computer Engineering

Chengdu, CHINA

2021.9–2025.6

La Jolla, CA, USA

2025.9 –

Research Interests

My research interests mainly lie in computer vision, especially 3D Vision (Reconstruction), Panoramic Vision (Reconstruction, Depth Estimation, and Generation), and Video Generation.

Submitted Papers (* indicates equal contribution.)

1. **One Flight Over the Gap: A Survey from Perspective to Panoramic Vision** [paper] [Project]
Xin Lin*, Xian Ge*, Dizhe Zhang, Zhaoliang Wan, Xianshun Wang, Xiangtai Li, Wenjie Jiang, Bo Du, Dacheng Tao, Ming-Hsuan Yang, Lu Qi
Submitted to CSUR.
2. **D²GS: Depth-and-Density Guided Gaussian Splatting for Stable and Accurate Sparse-View Reconstruction** [Project]
Meixi Song*, **Xin Lin***, Haodong Li, Dizhe Zhang, Xiangtai Li, Bo Du, Lu Qi
Submitted to ICLR 2026
3. **DA²: Depth Anything in Any Direction**[paper] [Project]
Haodong Li, Wangguandong Zheng, Jing He, Yuhao Liu, **Xin Lin**, Xin Yang, Ying-Cong Chen, Chunchao Guo
Submitted to ICLR 2026

Publications

1. **Re-boosting Self-Collaboration Parallel Prompt GAN for Unsupervised Image Restoration** [paper]
Xin Lin*, Yuyan Zhou*, Jingtong Yue, Chao Ren, Kelvin C.K. Chan, Lu Qi, Ming-Hsuan Yang.
TPAMI.
2. **HQGS: High-Quality Novel View Synthesis with Gaussian Splatting in Degraded Scenes** [paper]
Xin Lin*, Shi Luo*, Xiaojun Shan, Xiaoyu Zhou, Chao Ren, Lu Qi, Ming-Hsuan Yang and Nuno Vasconcelos.
ICLR 25.
3. **Unsupervised Image Denoising in Real-World Scenarios via Self-Collaboration Parallel Generative Adversarial Branches** [paper]
Xin Lin, Xiao Liu, Jie Huang, Chao Ren and Yinjie Lei.
ICCV 2023.
4. **RobuRCDet: Enhancing Robustness of Radar-Camera Fusion in Bird's Eye View for 3D Object Detection**
Jingtong Yue*, Zhiwei Lin*, **Xin Lin***, Xiaoyu Zhou, Xiangtai Li, Lu Qi, Yongtao Wang and Ming-Hsuan Yang.
[paper]
ICLR 25 (equal contribution)*
5. **Dual Degradation Representation for Joint Deraining and Low-Light Enhancement in the Dark** [paper]
Xin Lin, Jingtong Yue, Sixian Ding, Chao Ren, Lu Qi and Ming-Hsuan Yang.
TCSVT.
6. **Restore Anything with Masks: Leveraging Mask Image Modeling for Blind All-in-One Image Restoration** [paper]
Chujie Qin, Ruiqi Wu, Zikun Liu, **Xin Lin**, Chun-Le Guo, Hyun Hee Park and Chongyi Li.
ECCV 2024.

Research Experience

Insta360 <i>Research Scientist Intern</i>	Advisor: Dr. Dizhe Zhang and Prof. Lu Qi April 2025 – August 2025
UCSD <i>Research Intern (Remote)</i>	Advisor: Prof. Nuno Vasconcelos August 2024 – January 2025
UC Merced <i>Research Intern (Remote)</i>	Advisor: Prof. Ming-Hsuan Yang June 2023 – April 2025

Awards

- Jacobs Fellowship**; UCSD, USA.
- SenseTime Scholarship**; 25 Talented undergraduates in China.
- National Scholarship**; (Top 0.2% nationwide, highest scholarship in China).
- Top 10 Students in Sichuan University**; (10/60,000+).
- Chinese Mathematics Competitions first prize**; (Top 0.08% in Sichuan province).