

# 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 Low-Level Image Processing (Unified Restoration, deraining, and denoising).

## Submitted Papers

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  
*arXiv.*
2. **D<sup>2</sup>GS: Depth-and-Density Guided Gaussian Splatting for Stable and Accurate Sparse-View Reconstruction**  
Meixi Song\*, **Xin Lin\***, Haodong Li, Dizhe Zhang, Xiangtai Li, Bo Du, Lu Qi

## 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

*Research Scientist Intern*

### UCSD

*Research Intern*

### UC Merced

*Research Intern*

**Advisor: Dr. Dizhe Zhang and Prof. Lu Qi**

April 2025 – August 2025

**Advisor: Prof. Nuno Vasconcelos**

August 2024 – January 2025

**Advisor: Prof. Ming-Hsuan Yang**

June 2023 – April 2025

## Awards

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**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).