

# Xi Liu

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[Google Scholar](#) — [Homepage](#)

## Education

Clemson University, Ph.D in Computer Science (advisor: <a href="#">Siyu Huang</a> )	Jan. 2024 – Now
University of Copenhagen, M.S in Computer Science (advisor: <a href="#">Serge Belongie</a> )	Sept. 2021 – Jul. 2023
Jilin University — B.S in Computer Science	Sept. 2014 – Jul. 2018

## Publications

- **3DGS-Enhancer**: Enhancing Unbounded 3D Gaussian Splatting with View-consistent 2D Diffusion Priors (NeurIPS 2024 **Spotlight**). First author.
- **Bézier Splatting** for Fast and Differentiable Vector Graphics (NeurIPS 2025). First author.
- **Latent Radiance Fields** with 3D-aware 2D Representations (ICLR 2025). First co-author.
- **Vec2Pix: Controllable Image Synthesis via Semantic-aligned Vector Graphics** (Under Submission). First co-author.
- **HAD: Hallucination-Aware Diffusion Priors for 3D Reconstruction** (Under Submission). First author.

## Research Experience

<b>Affiliated Researcher</b> , Pioneer Center for AI (advisor: Prof. Serge Belongie)	Aug. 2022 – Aug. 2023
<ul style="list-style-type: none"><li>• 3D deformable object reconstruction from monocular video.</li><li>• Neural Radiance Field generation guided by generative models.</li></ul>	
<b>Research Assistant</b> , CPII, CUHK, (advisor Prof. Dahua Lin)	Jan. 2021 – Aug. 2021
<ul style="list-style-type: none"><li>• Supported OpenMMLab/MMDetection3D (5k stars).</li><li>• Reimplemented SOTA 3D point cloud detection algorithms.</li><li>• Resolved community issues and guided new users.</li></ul>	

## Work Experience

<b>Applied Scientist Intern (Just Walk Out), Amazon</b>	Jul. 2025 – Sept. 2025
<ul style="list-style-type: none"><li>• Developed a generative-prior-based framework for 3D virtual store reconstruction.</li><li>• Analyzed hallucination artifacts from generative priors and explored methods toward a research submission on reliable 3D reconstruction.</li></ul>	
<b>Lidar Perception R&amp;D Engineer, Momenta</b>	Sept. 2018 – Mar. 2020
<ul style="list-style-type: none"><li>• Developed real-time lidar object detection networks with &lt;30ms latency.</li><li>• Combined rule-based and deep-learning detection to boost recall.</li><li>• Deployed PyTorch models on autonomous vehicles; converted models to TorchScript in C++.</li></ul>	

## Honors & Awards

- College Excellent Student, Jilin University (2017–2018)
- Honorable Mention, Mathematical Contest in Modeling (2017)
- Second Prize, Mathematical Contest in Modeling, Jilin (2016)
- Second Prize Scholarship, Jilin University (2015–2016)

## Skills

**Tools:** PyTorch/Libtorch, ROS, PCL, GitHub.  
**Programming Languages:** C/C++, Python, CUDA, Haskell, Erlang.