

# **Xi Liu**

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[Google Scholar](#) — [Homepage](#)

## **Education**

**Clemson University**, Ph.D in Computer Science (advisor: [Siyu Huang](#))  
**University of Copenhagen**, M.S in Computer Science (advisor: [Serge Belongie](#))  
**Jilin University** — B.S in Computer Science

Jan. 2024 – Now  
Sept. 2021 – Jul. 2023  
Sept. 2014 – Jul. 2018

## **Publications**

- **3DG-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**

- Affiliated Researcher**, Pioneer Center for AI (advisor: Prof. Serge Belongie) Aug. 2022 – Aug. 2023
- 3D deformable object reconstruction from monocular video.
  - Neural Radiance Field generation guided by generative models.
- Research Assistant**, CPII, CUHK, (advisor Prof. Dahua Lin) Jan. 2021 – Aug. 2021
- Supported OpenMMLab/MMDetection3D (5k stars).
  - Reimplemented SOTA 3D point cloud detection algorithms.
  - Resolved community issues and guided new users.

## **Work Experience**

- Applied Scientist Intern (Just Walk Out), Amazon** Jul. 2025 – Sept. 2025
- Developed a generative-prior-based framework for 3D virtual store reconstruction.
  - Analyzed hallucination artifacts from generative priors and explored methods toward a research submission on reliable 3D reconstruction.
- Lidar Perception R&D Engineer, Momenta** Sept. 2018 – Mar. 2020
- Developed real-time lidar object detection networks with <30ms latency.
  - Combined rule-based and deep-learning detection to boost recall.
  - Deployed PyTorch models on autonomous vehicles; converted models to TorchScript in C++.

## **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.