Lihan Jiang

Homepage: jianglh-whu.github.io

Email: mr.lhjiang@gmail.com
Mobile: +86-19957411211

Education

- **University of Science and Technology of China** — Anhui, China
  Ph.D in Control Science and Engineering; GPA: 3.62/4.3 — *09/2023 - 06/2028 (expected)*
- **Wuhan University** — Wuhan, China
  Bachelor in Surveying and Mapping Engineering; GPA: 3.95/4.0 (Rank: 1/225) — *09/2019 - 06/2023*

  Courses: *Advanced Mathematics A1(95)/A2(94), Linear Algebra B(99), Probability and Mathematical Statistics B(98), Data Structure(95), Digital Image Processing(96), Digital Photogrammetry(95), Machine Learning(95)*

Publications

- **AnySplat: Feed-forward 3D Gaussian Splatting from Unconstrained Views** — SIGGRAPH Asia 2025
  L Jiang*, Y Mao*, L Xu, T Lu, K Ren, X Xu, M Yu, J Pang, F Zhao, D Lin, B Dai*
- **Horizon-GS: Unified 3D Gaussian Splatting for Large-Scale Aerial-to-Ground Scenes** — CVPR 2025
  L Jiang*, K Ren*, M Yu, L Xu, J Dong, T Lu, F Zhao, D Lin, B Dai*
- **Octree-GS: Towards Real-time Rendering with LOD-Structured 3D Gaussians** — TPAMI 2025
  K Ren, **L Jiang***, T Lu, M Yu, L Xu, Z Ni, B Dai*
- **Matrixcity: A large-scale city dataset for city-scale neural rendering and beyond** — ICCV 2023
  Y Li, **L Jiang***, L Xu, Y Xiangli, Z Wang, D Lin, B Dai*
- **ObjectGS: Object-aware Scene Reconstruction and Understanding via 3DGS** — ICCV 2025
  *R Zhu, M Yu, L Xu, **L Jiang**, Y Li, T Zhang, J Pang, B Dai*
- **Virtualized-GS: Cluster-based Level-of-Detail System for Real-Time Rendering** — SIGGRAPH 2025
  *X Yang, L XU, **L Jiang**, D Lin, B Dai*
- **GSDF: 3DGS Meets SDF for Improved Rendering and Reconstruction** — NIPS 2024
  M Yu, T Lu*, L Xu, **L Jiang**, Y Xiangli, B Dai*
- **PAD: A Dataset and Benchmark for Pose-agnostic Anomaly Detection** — NIPS 2023
  Q Zhou, W Li*, **L Jiang**, G Wang, G Zhou, S Zhang, H Zhao*

Research Experiences

- **Feed-forward Reconstruction** — Supervised by Linning Xu
  - **AnySplat (SIGGRAPH Asia 2025 (ACM TOG))**:
    - Proposed a feed-forward network for novel-view synthesis from uncalibrated image collections in both sparse- and dense-view scenarios.
    - Proposed an efficient self-supervised knowledge distillation for stable training and a novel differentiable voxelization for pruning redundant Gaussians.
- **Large-scale Scene Reconstruction** — Supervised by Prof. Bo Dai
  - **Horizon-GS (CVPR 2025)**:
    - Addressed the challenging task of unified large-scale scene reconstruction from combined aerial and street-level views.
    - Presented a high-quality, diverse cross-view dataset incorporating both synthetic and real-world data.
  - **Octree-GS (TPAMI 2025)**:
    - Proposed an approach to address the Level-of-Detail (LOD) problem in Gaussian representations for the first time.
    - Achieved consistent rendering speed by dynamically adjusting LOD retrieval on-the-fly.
  - **MatrixCity (ICCV 2023)**:
    - Developed a large-scale, high-quality synthetic dataset for city-scale neural rendering research.
    - Created an Unreal Engine 5 plugin for automated collection of high-quality urban environment data.

Projects

- **Unofficial implementation of LVSM** — Feb 2025 - Mar 2025
  https://github.com/OpenRobotLab/open-lvsm

  Reproduced LVSM (ICLR 2024 Oral), a large-scale view synthesis model with minimal 3D inductive bias.
- **Core member of Landmark** — June 2023 - Aug 2024
  https://landmark.intern-ai.org.cn

  Landmark is the world's first city-scale NeRF-based 3D foundation model, supporting 4K high-resolution training for areas up to 100 square kilometers, real-time rendering, and flexible editing. My responsibilities included data processing, core algorithm design, and demo development.

Honors and Awards

- Ph.D. First Class Academic Scholarship - Sep 2024
- Ph.D. Second Class Academic Scholarship - Sep 2023
- Outstanding Graduate Student - July, 2023
- China National Scholarships - Nov, 2021/2020
- The First Prize Scholarship - Nov, 2021/2020

Professional Skills

- **Programming languages**: Python, Matlab, C/C++
- **Languages**: Mandarin (native), English (CET6 573)