Yang(Marino) Li

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Education

Rutgers, The State University of New Jersey-New Brunswick — New Brunswick, NJ, US
Doctor of Philosophy, Computer Science — *Aug 2025 — Present*
- Supervisor: Dr. Chengzhi Mao
- Research Interests: Parallel and Spatial Reasoning for (Multimodal) Large Language Models

Hong Kong University of Science and Technology, Guangzhou — Guangzhou, CN
Master of Philosophy, Artificial Intelligence — *Aug 2022 — Oct 2024*
- Supervisor: Dr. Ying-Cong Chen, co-supervised by Dr. Dan Xu
- Thesis: Neural 3D Reconstruction of Reflective Objects

Sun Yat-sen University — Guangzhou, CN
Bachelor of Science, Mathematics and Applied Mathematics — *Aug 2018 — Jun 2022*
- Thesis: Sim2Real Segmentation for Autonomous Driving

Research Experience

Department of Computer Science, Rutgers University — Aug 2025 — Present
Graduate Research Assistant — *New Brunswick, NJ, US*
- **Parallel Reasoning for Large Language Models:** Conducting research on parallel and interactive reasoning mechanisms. We are developing frameworks that enable LLMs to perform concurrent reasoning with mutual communication, aiming to enhance both inference efficiency and accuracy.
- Supervisor: Dr. Chengzhi Mao

LightSpeed Studios, Tencent — Mar 2025 — Present
Research Intern — *Shenzhen, CN*
- **Large Generative 3D Models:** Developing a universal 3D asset generation framework, *UltraShape 3D 1.0*, designed to seamlessly integrate with downstream game development pipelines. **Technical report with full-stack open-source is released to public to facilitate community collaboration and innovation.**
- Mentor: Dr. Zeyu Hu and Dr. Yuhan Wang

Media Computing Group, Microsoft Research Lab - Asia (MSRA) — Jun 2024 — Feb 2025
Research Intern — *Beijing, CN*
- **Neural 3D Representation from Unposed Videos:** Proposed an online generalizable 3D Gaussian Splatting (3DGS) reconstruction method for monocular videos. The system transforms video streams into 3D Gaussians within seconds. This work was accepted by **ICCV 2025**.
- Mentor: Dr. Jinglu Wang and Dr. Xiao Li

Optical Imaging Research Group, SmartMore — Jun 2022 — May 2024
Research Intern — *Shenzhen, CN*
- **Neural 3D Reconstruction with Polarization Cues:** Developed a low-cost and accurate multi-view 3D reconstruction pipeline specifically for reflective objects by leveraging physics-based polarization cues. This work was accepted by **ICLR 2024**.
- Mentor: Dr. Jiangbo Lu and Dr. Nianjuan Jiang

BME AI Lab, Sun Yat-sen University — Mar 2021 — Nov 2021
Research Assistant — *Guangzhou, CN*
- **Medical Image Segmentation:** Enhanced the accuracy of nasopharyngeal carcinoma segmentation in MRI scans to facilitate precise radiotherapy treatments. The findings were published in the journal *Sensors*.
- Supervisor: Dr. Zhifan Gao

Publications

Preprints

[Tech Report '25] Tanghui Jia, Dongyu Yan, Dehao Hao, **Yang Li**, Kaiyi Zhang, Xianyi He, Lanjiong Li, Jinnan Chen, Lutao Jiang, Qishen Yin, Long Quan, Ying-Cong Chen, Li Yuan. UltraShape 1.0: High-Fidelity 3D Shape Generation via Scalable Geometric Refinement. *arXiv:2512.21185*, 2025. website

[Arxiv '25] Shiu-hong Kao, Xiao Li, Jinglu Wang, **Yang Li**, Chi-Keung Tang, Yu-Wing Tai, Yan Lu. UVRM: A Scalable 3D Reconstruction Model from Unposed Videos. *arXiv:2501.09347*, 2025. demo

Peer-reviewed

[ICCV '25] **Yang Li**, Jinglu Wang, Lei Chu, Xiao Li, Shiu-hong Kao, Ying-Cong Chen, Yan Lu. StreamGS: Online Generalizable Gaussian Splatting Reconstruction for Unposed Image Streams. *International Conference on Computer Vision (ICCV)*, 2025.

[ICCVW '25 Oral] Shuai Yang, Yuying Ge, **Yang Li**, Yukang Chen, Yixiao Ge, Ying Shan, Yingcong Chen. SEED-Story: Multimodal Long Story Generation with Large Language Model. ***Oral***, *Workshop on Human-Interactive Generation and Editing, International Conference on Computer Vision (ICCV)*, 2025. code

[ICLR '24] **Yang Li**, Ruizheng Wu, Jiyong Li, Yingcong Chen. GNeRP: Gaussian guided Neural Reconstruction of Reflective Objects with Noisy Polarization Priors. *International Conference on Learning Representations (ICLR)*, 2024. project page

[AAAI '24] Jiyong Li, Dilshod Azizov, **Yang Li**, Shangsong Liang. Contrastive Continual Learning with Importance Sampling and Prototype-Instance Relation Distillation. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 2024.

[Sensors '24] **Yang Li**, Guanghui Han, Xiujian Liu. DCNet: Densely Connected Deep Convolutional Encoder Decoder Network for Nasopharyngeal Carcinoma Segmentation. *Sensors 2021, 21(23), 7877*, 2021.

Awards

Ph.D. Fellowship, Department of Computer Science, Dartmouth College 2025

Ph.D. Fellowship, Department of Computer Science, Rutgers University–New Brunswick 2025

Star of Tomorrow Award, Microsoft Research Asia, Microsoft 2025

McGill & Mila Quebec Ph.D. Fellowship, McGill University 2024

Postgraduate Scholarship, HKUST, GZ 2024

Sun Yat-sen Excellent Student Scholarship, Sun Yat-sen University 2019

Skills

- **Programming Languages**: Python, PyTorch, TensorFlow, MATLAB