YIQING LIANG

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RESEARCH AND WORK EXPERIENCE

Research Scientist Intern, NVIDIA Research, Santa Clara, CA, USA

Jun 2024 - Nov 2024

Advisors: Abhishek Badki, Hang Su, Orazio Gallo

Topics: Generalizable Scene Flow Prediction given Large-Scale Data Curation

AI Research Scientist Intern, Meta Reality Labs, Redmond, WA, USA

Jun 2023 - Nov 2023

Advisors: Numair Khan, Lei Xiao, Douglas Lanman

Topics: Gaussian Deformation Fields for real-time Dynamic Novel View Synthesis

Research Assistant, Brown University, Providence, RI, USA

Sep 2021-

Advisor: James Tompkin

Topic: 3D Multimodal Generative AI for Dynamic Scenes

Research Assistant, Columbia University, New York, NY, USA

Sep 2019-May 2021

Advisors: Shuran Song, Shih-Fu Chang

Topic: RL-based Embodied Navigation Agent, Vision-Language Commonsense Reasoning

Research Intern, SenseTime, Shanghai, Shanghai, China

Aug 2018-Mar 2019

Advisor: Cheng Li

Topic: AI Education for Computer Vision

Research Assistant, MIT CSAIL, Cambridge, MA, USA

Feb 2018-May 2018

Advisors: Xavier Puig, Bolei Zhou, Antonio Torralba

Topic: VirtualHome Action Space Extension

EDUCATION

Ph.D. in Computer Science,

Sept 2021 - Summer 2025

Department of Computer Science, Brown University, RI, USA

M.S. in Computer Science,

Aug 2019 - May 2021

Department of Computer Science, Columbia University, NY, USA

Special Student Program,

Feb 2018 - Jun 2018

Department of Electrical Engineering and Computer Science, MIT, MA, USA

B.S. in Computer Science,

Sept 2015 - June 2019

School of Computer Science, Fudan University, Shanghai, China

SELECTED PUBLICATIONS & PREPRINTS

[1] MoDoMoDo:Multi-Domain Data Mixtures for Multimodal LLM Reinforcement Learning

Yiqing Liang, Jielin Qiu, Wenhao Ding, Zuxin Liu, James Tompkin, Mengdi Xu, Mengzhou Xia, Zhengzhong Tu, Laixi Shi, Jiacheng Zhu

Under Review, 2025

[2] E3D-Bench: A Benchmark for End-to-End 3D Geometric Foundation Models

Wenyan Cong, **Yiqing Liang**, Yancheng Zhang, Ziyi Yang, Yan Wang, Boris Ivanovic, Marco Pavone, Chen Chen, Zhangyang Wang, Zhiwen Fan

Under Review, 2025

[3][Award Candidate] Zero-shot Monocular Scene Flow Estimation in the Wild

Yiqing Liang, Abhishek Badki*, Hang Su*, James Tompkin, Orazio Gallo IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025

- [4] Monocular Dynamic Gaussian Splatting is Fast and Brittle but Smooth Motion Helps Yiqing Liang, Mikhail Okunev, Mikaela Angelina Uy, Runfeng Li, Leonidas J. Guibas, James Tompkin, Adam Harley Transactions on Machine Learning Research (TMLR), 2025
- [5] Gaufre: Gaussian Deformation Fields for Real-time Dynamic Novel View Synthesis Yiqing Liang, Numair Khan, Zhengqin Li, Thu Nguyen-Phuoc, Douglas Lanman, James Tompkin, Lei Xiao IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025
- [6] Semantic Attention Flow Fields for Monocular Dynamic Scene Decomposition Yiqing Liang, Eliot Laidlaw, Alexander Meyerowitz, Srinath Sridhar, James Tompkin IEEE/CVF International Conference on Computer Vision (ICCV), 2023
- [7] Scene Graph Enhanced Image-Text Learning for Visual Commonsense Reasoning Zhecan Wang, Haoxuan You, Liunian Harold Li, Alireza Zareian, Suji Park, Yiqing Liang, Kai-Wei Chang, Shih-Fu Chang The AAAI Conference on Artificial Intelligence (AAAI), 2022
- [8] SSCNav: Confidence-Aware Semantic Scene Completion for Visual Semantic Navigation Yiqing Liang, Boyuan Chen, Shuran Song
 IEEE International Conference on Robotics and Automation (ICRA), 2021

ACADEMIC SERVICES

Reviewing:

Journal

Conference IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

IEEE/CVF International Conference on Computer Vision (ICCV)

IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)

Annual Conference of the European Association for Computer Graphics (Eurographics)

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

IEEE International Conference on Robotics and Automation (ICRA) Conference on Neural Information Processing Systems (NeurIPS) Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

IEEE Robotics and Automation Letters (RA-L)

The Visual Computer: International Journal of Computer Graphics (TVCJ)

INVITED TALKS & ACTIVITIES

Zero-shot Monocular Scene Flow Estimation in the Wild April 2025

Invited talk Visual Computing Group, Harvard, USA

Zero-shot Monocular Scene Flow Estimation in the Wild

Lightning talk

NYC Computer Vision Day 2025, NYU, USA

Gaussian Deformation Fields for Real-time Dynamic Novel View Synthesis Nov 2023 Oral presentation The New England Computer Vision Workshop (NECV) 2023, Dartmouth, USA

Semantic Attention Flow Fields for Monocular Dynamic Scene Decomposition Feb 2023

Long Talk Invited Talk at Northeastern University, Hosted by Prof. Huaizu Jiang, USA

Semantic Attention Flow Fields for Monocular Dynamic Scene Decomposition Dec 2022 Oral presentation The New England Computer Vision Workshop (NECV) 2022, MIT, USA