

Kaifeng Zhang

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EDUCATION

Columbia University

Ph.D. student in Computer Science

Aug 2024 – Present

Advisor: Professor Yunzhu Li

University of Illinois Urbana-Champaign

Ph.D. Student in Computer Science

Aug 2023 – Aug 2024

Advisor: Professor Yunzhu Li

- Completed one year of Ph.D. study before transferring to Columbia University.

Tsinghua University

B.Eng. in Computer Science, Institute for Interdisciplinary Information Sciences

Sep 2019 – Jun 2023

GPA: 3.93/4.0

- Visiting student at the University of California, San Diego from Feb 2022 to Jul 2022.

PUBLICATIONS

Particle-Grid Neural Dynamics for Learning Deformable Object Models from Depth Images

Kaifeng Zhang, Baoyu Li, Kris Hauser, Yunzhu Li

in submission.

Dynamic 3D Gaussian Tracking for Graph-Based Neural Dynamics Modeling

Mingtong Zhang*, Kaifeng Zhang*, Yunzhu Li

in Conference on Robot Learning (CoRL), 2024.

AdaptiGraph: Material-Adaptive Graph-Based Neural Dynamics for Robotic Manipulation

Kaifeng Zhang*, Baoyu Li*, Kris Hauser, Yunzhu Li

in Robotics: Science and Systems (RSS), 2024 ; ICRA RMDO Workshop, 2024 (Best Abstract Award, Top 1)

4DRecons: 4D Neural Implicit Deformable Objects Reconstruction from a single RGB-D Camera with Geometrical and Topological Regularizations

Xiaoyan Cong, Haitao Yang, Liyan Chen, Kaifeng Zhang, Li Yi, Chandrajit Bajaj, Qixing Huang

Preprint, 2024.

Self-Supervised Geometric Correspondence for Category-Level 6D Object Pose Estimation in the Wild

Kaifeng Zhang, Yang Fu, Shubhankar Borse, Hong Cai, Fatih Porikli, Xiaolong Wang

in International Conference on Learning Representations (ICLR), 2023.

Semantic-Aware Fine-Grained Correspondence

Yingdong Hu, Renhao Wang, Kaifeng Zhang, Yang Gao

in European Conference on Computer Vision (ECCV), 2022. (Oral presentation)

SELECTED RESEARCH EXPERIENCES

RoboPIL Lab, Columbia University & UIUC

Graduate Research Assistant

Aug 2023 – Present

Advisor: Professor Yunzhu Li

- Focus: learning 3D structured world models for robot manipulation; 3D object reconstruction, tracking, and model learning; deformable object manipulation.

University of California, San Diego

Undergraduate Research Assistant

Feb 2022 – Jul 2023

Advisor: Professor Xiaolong Wang

- Focus: object 6D pose estimation and 3D reconstruction; novel view synthesis with diffusion model and NeRF.

Tsinghua Vision and Robotics Lab

Undergraduate Research Assistant

Jun 2021 – Mar 2022

Advisor: Professor Yang Gao

- Focus: contrastive learning of visual correspondence; self-supervised video segmentation and label propagation.

SELECTED AWARDS & HONORS

Best Abstract Award, 4th Workshop on Representing and Manipulating Deformable Objects @ ICRA 2024. 05/2024

Outstanding Graduate, Tsinghua University (Top 10%). 06/2023

Comprehensive Excellence Award, Tsinghua University. 10/2021, 10/2022

Xuetang Talents Program Scholarship, Tsinghua University. 10/2020

Freshman Scholarship, Tsinghua University. 10/2019

Silver Prize, the 35th Chinese Physics Olympiad, Chinese Physical Society. 08/2018