

TIANYUAN ZHANG

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EDUCATION

Massachusetts Institute of Technology, U.S.

Ph.D Student
Ph.D in Electrical Engineering and Computer Science

2023.9 - present

Advisor: Prof. Bill Freeman

Carnegie Mellon University, U.S.

M.S.
M.S. in Robotics. Robotics Institute, School of Computer Science

2021.9 - 2023.8

Advisor: Prof. Srinivasa Narasimhan

Peking University, China

Undergraduate
B.S., Department of Computer Science, School of Electronics Engineering and Computer Science

2016.9 - 2020.6

RESEARCH INTEREST

Computer Vision, Visual Generative Models, Long Context Modeling, Continue Learning

PUBLICATIONS

Test-Time Traing Done Right

Tianyuan Zhang, Sai Bi, Yicong Hong, Kai Zhang, FujunLuan, Songlin Yang,
Kalyan Sunkavalli, William T.Freeman, Hao Tan
Arxiv 2025

RandAR: Decoder-only Autoregressive Visual Generation in Random Orders

Ziqi Pang* Tianyuan Zhang*, Fujun Luan, Yunze Man, Hao Tan,
Kai Zhang, William T.Freeman, Yu-Xiong Wang
CVPR2025 Oral

RelitLRM: Generative Relightable Radiance for Large Reconstruction Models

Tianyuan Zhang, Zhengfei Kuang, Haian Jin, Zexiang Xu, Sai Bi, Hao Tan,
He Zhang, Yiwei Hu, Milos Hasan, William T. Freeman, Kai Zhang, Fujun Luan
ICLR2025 Spotlight

LVSM: A Large View Synthesis Model with Minimal 3D Inductive Bias

Haian Jin, Hanwen Jiang, Hao Tan, Kai Zhang, Sai Bi, Tianyuan Zhang,
Fujun Luan, Noah Snavely, Zexiang Xu
ICLR2025 Oral

PhysDreamer: Physics-Based Interaction with 3D Objects via Video Generation

Tianyuan Zhang, Hong-Xing “Koven” Yu, Rundi Wu, Brandon Y. Feng,
Changxi Zheng, Noah Snavely, Jiajun Wu, William T. Freeman.

Analyzing Physical Impacts using Transient Surface Wave Imaging

Tianyuan Zhang, Mark Sheinin, Dorian Yao Chan, Mark Rau,

Matthew O'Toole, Srinivasa Narasimhan.

CVPR2023

RIFE: Real-Time Intermediate Flow Estimation for Video Frame Interpolation

Zhewei Huang, Tianyuan Zhang, Wen Heng, Boxin Shi, Shuchang Zhou.

ECCV 2022.

DETR3D: 3D Object Detection from Multi-view Images via 3D-to-2D Queries

Yue Wang, Vitor Guizilini*, Tianyuan Zhang*, Yilun Wang, Hang Zhao, Justin Solomon.

CoRL 2021.

Objects365: A Large-scale, High-quality Dataset for Object Detection

Shuai Shao*, Zeming Li*, Tianyuan Zhang*, Chao Peng*, Gang Yu,

Xiangyu Zhang, Jing Li, Jian Sun.

ICCV 2019.

You Only Propagate Once: Accelerating Adversarial Training via Maximal Principle

Dinghuai Zhang*, Tianyuan Zhang*, Yiping Lu*, Zhanxing Zhu, Bin Dong.

NeurIPS 2019.

Interpreting Adversarially Trained Convolutional Neural Networks

Tianyuan Zhang, Zhanxing Zhu

ICML 2019.

INDUSTRY EXPERIENCE

Adobe Research

Research Intern

2024.6 - present

Mentor: Hao Tan

Shanghai Qizhi Research Institute

Research Assistant on Autonomous Driving

2021.4 - 2021.8

Mentor: Prof. Hang Zhao

Bytedance

Research Engineer

2020.6 - 2021.3

Microsoft Research Asia

Research Intern

2020.1 - 2020.6

Mentor: Prof. Dihe & Dr.Guolin Ke

Megvii(Face++) Research

Research Intern

2018.3 - 2020.1

Mentor: Dr.Xiangyu Zhang

INVITED TALKS

Test-Time Training Done Right. ASAP Seminar. June 2025

Test-Time Training Done Right. Google Deepmind, London. June 2025

RNN with Large Nonlinear States by Test-Time Training. Bytedance Seed. July 2025

Long Context Modeling with Test-Time Training. Stanford Vision Seminar. Aug 2025

Long Context Modeling with Test-Time Training. UT Austin Vision Seminar. Aug 2025