HANWEN JIANG

(858) · 333 · 0591 ⋄ hwjiang1510@gmail.com
https://hwjiang1510.github.io/

RESEARCH INTERESTS

My research aims at building *scalable* and *generalizable* models for understanding the physical world. I have worked on:
3D Vision: 3D perception (reconstruction, novel view synthesis, pose estimation), 3D generation, 3D interaction
2D Vision: Visual representation learning, spatio-temporal correspondences, video understanding

EDUCATION

The University of Texas, Austin (UT Austin)   *2021-Present*
Ph.D. in Computer Science, Advisor: Prof. Qixing Huang and Prof. Georgios Pavlakos

University of California, San Diego (UCSD)   *2019-2021*
M.S. in Computer Science & Engineering, Advisor: Prof. Xiaolong Wang

Wuhan University   *2015-2019*
B.E. in Measuring & Control Technology and Instrumentation, GPA: 3.81/4.0 (1st / 46)

EXPERIENCE

NVIDIA Research   to be started
Research Intern, Deep Imagination Group, Host: Dr. Ming-Yu Liu   *San Jose, CA*

Adobe Research   May 2024 - May 2025
Research Intern, Neural Rendering Group, Hosts: Dr. Hao Tan, Dr. Kalyan Sunkavalli   *San Jose, CA*

Google Research / DeepMind   June 2023 - Nov 2023
Research Intern, Image Understanding Group, Hosts: Dr. Andre Araujo, Arjun Karpur   *Mountain View, CA*

Wormpex AI Research, Inc   May 2021 - Aug 2021
Research Intern, Hosts: Dr. Zhou Ren, Dr. Gang Hua   *Seattle, WA*

UT Austin Computer Vision Lab   Aug 2021 - May 2023
Research Assistant, Advisor: Prof. Kristen Grauman   *Austin, TX*

UT Austin RPL Lab   Aug 2021 - May 2023
Research Assistant, Advisor: Prof. Yuke Zhu   *Austin, TX*

PUBLICATION & PREPRINT

[14] **MegaSynth: Scaling Up 3D Scene Reconstruction with Synthesized Data**
Hanwen Jiang, Zexiang Xu, Desai Xie, Chen Ziwen, Haian Jin, Fujun Luan, Zhixin Shu, Kai Zhang, Sai Bi, Xin Sun, Jiuxiang Gu, Qixing Huang, Georgios Pavlakos, Hao Tan
In submission, 2024. Project page: https://hwjiang1510.github.io/MegaSynth/

[13] **LVSM: A Large View Synthesis Model with Minimal 3D Inductive Bias**
Haian Jin, **Hanwen Jiang**, Hao Tan, Kai Zhang, Tianyuan Zhang, Fujun Luan, Noah Snavly, Zexiang Xu
In submission, 2024. Project page: https://haian-jin.github.io/projects/LVSM/

[12] **Atlas Gaussians Diffusion for 3D Generation**
Haitao Yang, Yuan Dong, **Hanwen Jiang**, Dejia Xu, Georgios Pavlakos, Qixing Huang
In submission, 2024. Paper: https://arxiv.org/abs/2408.13055

[11] **Real3D: Scaling Up Large Reconstruction Models with Real-World Images**
Hanwen Jiang, Georgios Pavlakos, Qixing Huang
In submission, 2024. Project page: https://hwjiang1510.github.io/Real3D/

[10] **CoFie: Learning Compact Neural Surface Representations with Coordinate Fields**
Hanwen Jiang, Haitao Yang, Georgios Pavlakos, Qixing Huang
NeurIPS 2024. Project page: https://hwjiang1510.github.io/CoFie/

[9] **OmniGlue: Generalizable Feature Matching with Foundation Model Guidance**
Hanwen Jiang, Arjun Karpur, Bingyi Cao, Qixing Huang, Andre Araujo
CVPR, 2024. Project page: https://hwjiang1510.github.io/OmniGlue/

[8] **LEAP: Liberate Sparse-view 3D Modeling from Camera Poses**
Hanwen Jiang, Zhenyu Jiang, Yue Zhao, Qixing Huang
ICLR, 2024. Project page: https://hwjiang1510.github.io/LEAP/

[7] **DODUO: Dense Visual Correspondence from Unsupervised Semantic-Aware Flow**
Zhenyu Jiang, **Hanwen Jiang**, Yuke Zhu
ICRA, 2024. Project page: https://ut-austin-rpl.github.io/Doduo/

[6] **Few-View Object Reconstruction with Unknown Categories and Camera Poses**
Hanwen Jiang, Zhenyu Jiang, Kristen Grauman, Yuke Zhu
3DV, 2024 (*oral presentation*, ***best paper candidate***). Project page: https://ut-austin-rpl.github.io/FORGE/

[5] **Single-Stage Visual Query Localization in Egocentric Videos**
Hanwen Jiang, Santhosh Ramakrishnan, Kristen Grauman
NeurIPS, 2023. Project page: https://hwjiang1510.github.io/VQLoC/

[4] **DexMV: Imitation Learning for Dexterous Manipulation from Human Videos**
Yuzhe Qin*, Yueh-Hua Wu*, Shaowei Liu, **Hanwen Jiang**, Ruihan Yang, Yang Fu, Xiaolong Wang
ECCV, 2022. Project page: https://yzqin.github.io/dexmv/

[3] **Hand-Object Contact Consistency Reasoning for Human Grasps Generation**
Hanwen Jiang*, Shaowei Liu*, Jiashun Wang, Xiaolong Wang
ICCV, 2021 (*oral presentation*). Project page: https://hwjiang1510.github.io/GraspTTA/

[2] **Semi-Supervised 3D Hand-Object Poses Estimation with Interactions in Time**
Shaowei Liu*, **Hanwen Jiang***, Jiarui Xu, Sifei Liu, Xiaolong Wang
CVPR, 2021. Project page: https://stevenlsw.github.io/Semi-Hand-Object/

[1] **Robust Road Lane Detection from Continuous Driving Scenes Using Deep Neural Networks**
Qin Zou, **Hanwen Jiang**, Qiyu Dai, Yuanhao Yue, Long Chen, Qian Wang
IEEE Trans on Vehicular Technology, 2020. Project page: https://github.com/qinnzou/Robust-Lane-Detection

SERVICE

2024 Spring CS 395T: Learning for 3D Humans	Teaching Assistant
2023 Fall CS 313: Elements of Software Design	Teaching Assistant
2023 Spring CS 378: Symbolic Programming	Teaching Assistant
CVPR, ICCV, ECCV, ICLR, NeurIPS, ICML, 3DV, AAAI, ICRA, TPAMI, TVCG, RA-L	Reviewer The
Workshop on Enforcing Inductive Bias in 3D Generation at CVPR 2025	Co-organizer

AWARDS & HONORS

3DV 2024 Best Paper Candidate	2024
Winner of Ego4D VQ2D challenge at CVPR	2023
UCLA Cross-Disciplinary Scholars in Science and Technology (CSST) Scholarship	2018
National Scholarship of China	2016 & 2017

TALKS

Towards 3D Reconstruction Foundation Models: Task, Model, and Scalable Learning.   UT Austin, Adobe, 2024
Oral presentation of FORGE   Workshop on 3D Vision and Robotics, CVPR 2023
VQ2D challenge winner oral talk   Joint 3rd Ego4D and 11th EPIC Workshop on Egocentric Vision, CVPR 2023
Oral presentation of GraspTTA   Workshop on Structural and Compositional Learning on 3D Data, ICCV 2021

SKILL

Programming languages: Python, C++, MATLAB, Bash
Tools: Git, Docker, PyTorch, TensorFlow