Zixuan Huang

E-mail: zixuan32@illinois.edu

Education

University of Illinois Urbana-Champaign   2023 – 2025 (expected)

PhD in Computer Science
- Advisor: James M. Rehg
- GPA to date: 4.0/4.0
- Research Focus: 3D shape reconstruction

Georgia Institute of Technology   2020 – 2023 (transferred to UIUC)

PhD in Computer Science
- Advisor: James M. Rehg
- GPA: 4.0/4.0
- Research Focus: 3D shape reconstruction

University of Wisconsin-Madison   2018 – 2020

Master of Science in Computer Science
- Advisor: Yin Li
- GPA: 3.93/4.0
- Research Focus: Computational modeling of perceptual grouping

University of Science and Technology of China   2014 – 2018

Bachelor of Engineering in Electronic Engineering and Information Science
- Core Curricula: Signals and Systems, Stochastic Processes, Introduction to Algorithms, Operating Systems, Digital Image Analysis, Mathematical Analysis
- GPA: 3.87/4.30

Research Experiences

Research Assistant | Rehg Lab, UIUC, Georgia Tech   Sept. 2020 – current

Advisor: James M. Rehg, Professor, UIUC
- Scalable and generalizable 3D shape reconstruction algorithm

Research Intern | Meta   May. 2023 – July 2023

Mentor: Chao-Yuan Wu, Research Scientist, Meta
- 3D shape reconstruction from RGB-D input

Student Researcher | Google Research   Feb. 2022 – May 2022

Manager: Yuanzhen Li, Senior Staff Software Engineer, Google Research
- 3D shape inference in the wild

Research Assistant | Yin's Group, UW-Madison   Sept. 2018 – May 2020

Advisor: Yin Li, Assistant Professor, UW-Madison
- Computational modeling of perceptual grouping

Research Intern | Research Center, Sensetime Inc.   Feb. 2018 – June 2018

Manager: Shuai Yi, Research Director, Sensetime
- Single-view depth map completion

Publication

ShapeClipper: Scalable 3D Shape Learning from Single-View Images via Geometric and CLIP-based Consistency
Zixuan Huang, Varun Jampani, Anh Thai, Yuanzhen Li, Stefan Stojanov, James M. Rehg
CVPR 2023

Planes vs. Chairs: Category-guided 3D Shape Learning without Any 3D Cues
Zixuan Huang, Stefan Stojanov, Anh Thai, Varun Jampani, James M. Rehg
ECCV 2022

Interpretable and Accurate Fine-grained Recognition via Region Grouping
Zixuan Huang, Yin Li
CVPR 2020

HMS-Net: Hierarchical Multi-scale Sparsity-invariant Network for Sparse Depth Completion
Zixuan Huang, Junming Fan, Shenggan Cheng, Shuai Yi, Xiaogang Wang, Hongsheng Li
IEEE Trans. on Image Processing, 2019

The Surprising Positive Knowledge Transfer in Continual 3D Object Shape Reconstruction
Anh Thai, Stefan Stojanov, **Zixuan Huang**, James M. Rehg
3DV 2022

Learning Dense Object Descriptors from Multiple Views for Low-shot Category Generalization
Stefan Stojanov, Anh Thai, **Zixuan Huang**, James M. Rehg
NeurIPS 2022

Low-shot Object Learning with Mutual Exclusivity Bias
Anh Thai, Ahmad Humayun, Stefan Stojanov, **Zixuan Huang**, Bikram Boote, James M. Rehg
NeurIPS 2023, Datasets and Benchmarks Track

Skills & Others

- Proficient in Python and C, familiar with C++ and Matlab