# Dr. Hang Zhou

#### CONTACT INFORMATION

Department of Electrical and Computer Engineering

University of Alberta Edmonton, AB T6G 2B8

CANADA

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#### Research Interests

The interdisciplinary field of artificial intelligence and scene understanding: Graphics, Generative Models, Machine Learning, Deep Learning, Computer Vision

# EMPLOYMENT

Postdoctoral Fellow

Collaborator: Prof. Li Cheng

Department of Electrical and Computer Engineering

Faculty of Engineering, The University of Alberta, Canada

Develop image composition and 3D reconstruction methods; help supervise students

Postdoctoral Fellow 2021 - 2023

Collaborator: Prof. Hao (Richard) Zhang

School of Computer Science

Faculty of Applied Sciences, Simon Fraser University, Canada

Develop image composition for self-driving and 3D generation; help supervise students

Research Intern 2017 - 2018

Microsoft Research Asia, China

#### EDUCATION

# Doctor of Engineering

2020

2015

2024 - Now

The University of Science and Technology of China (USTC), Hefei, China

# Bachelor of Engineering

Shanghai University (SHU), Shanghai, China

# Publication List

#### Conference Publications

- 11. **Hang Zhou**, Xinxin Zuo, Rui Ma, and Li Cheng, BOOTPLACE: Bootstrapped Object Placement with Detection Transformers, CVPR 2025.
- 10. Weitao Feng, **Hang Zhou**, Jing Liao, Li Cheng, and Wenbo Zhou, CASAGPT: Cuboid Arrangement and Scene Assembly for Interior Design, *CVPR 2025*.
- 9. Qi Sun, **Hang Zhou**, Wengang Zhou, Li Li, and Houqiang Li, FOREST2SEQ: Revitalizing Order Prior for Sequential Indoor Scene Synthesis, *ECCV*, 2024.
- 8. Zhiqin Chen, Qimin Chen, **Hang Zhou**, and Hao Zhang, DAE-Net: Deforming Auto-Encoder for Fine-grained Shape Co-segmentation, ACM SIGGRAPH, 2024.
- 7. Kui Zhang, **Hang Zhou**, Jie Zhang, Wenbo Zhou, Weiming Zhang, and Nenghai Yu, Transferable Facial Privacy Protection against Blind Face Restoration via Domain-Consistent Adversarial Obfuscation, *ICML*, 2021
- 6. Qimin Chen, Zhiqin Chen, **Hang Zhou**, and Hao Zhang, ShaDDR: Interactive Example-based Geometry and Texture Generation via 3D Shape Detailization and Differentiable Rendering, *ACM SIGGRAPH Asia*, 2023.

- 5. Zehua Ma, **Hang Zhou**, and Weiming Zhang, AnisoTag: 3D Printed Tag on 2D Surface via Reflection Anisotropy, *CHI*, 2023.
- 4. Qidong Huang, Xiaoyi Dong, Dongdong Chen, **Hang Zhou**, Weiming Zhang, and Nenghai Yu, Shape-invariant 3D Adversarial Point Clouds, CVPR, 2022.
- 3. **Hang Zhou**, Dongdong Chen, Jing Liao, Weiming Zhang, Kejiang Chen, Xiaoyi Dong, Kunlin Liu, Gang Hua, and Nenghai Yu, LG-GAN: Label Guided Adversarial Network for Flexible Targeted Attack of Point Cloud-based Deep Networks, *CVPR*, 2020.
- 2. Xiaoyi Dong, Dongdong Chen, **Hang Zhou**, Gang Hua, Weiming Zhang, and Nenghai Yu, Self-robust 3D Point Recognition via Gather-vector Guidance, *CVPR*, 2020.
- 1. **Hang Zhou**, Kejiang Chen, Weiming Zhang, Han Fang, Wenbo Zhou, and Nenghai Yu, DUP-Net: Denoiser and Upsampler Network for 3D Adversarial Point Clouds Defense, *ICCV*, 2019.

#### Journal Publications

- 4. Qidong Huang, Xiaoyi Dong, Dongdong Chen, **Hang Zhou**, Weiming Zhang, Kui Zhang, Gang Hua, and Nenghai Yu, PointCAT: Contrastive Adversarial Training for Robust Point Cloud Recognition, *IEEE Trans. on Image Processing (TIP)*, Vol. 33, pp. 2183–2196, 2024.
- 3. **Hang Zhou**, Rui Ma, Ling-Xiao Zhang, Lin Gao, Ali Mahdavi-Amiri, and Hao Zhang, SAC-GAN: Structure-aware Image Composition, *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, Vol. 30, No. 7, pp. 3151–3165, 2024.
- 2. Qichao Ying, **Hang Zhou**, Zhenxing Qian, Sheng Li, and Xinpeng Zhang, Learning to Immunize Images for Tamper Localization and Self-recovery, *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, Vol. 45, No. 11, pp. 13814–13830, 2023.
- 1. **Hang Zhou**, Kejiang Chen, Weiming Zhang, Chuan Qin, and Nenghai Yu, Feature-Preserving Tensor Voting Model for Mesh Steganalysis, *IEEE Trans. on Visualization and Computer Graphics (TVCG)*, Vol. 27, No. 1, pp. 57–67, 2019.

#### Awards

Best Paper Award of IJCAI International Workshop on Safety and Security of Deep Learning	2021
Outstanding Doctoral Dissertation, Chinese Academy of Sciences	2021
SIGWEB Outstanding Doctoral Dissertation, ACM China	2021
The President Scholarship, Chinese Academy of Sciences	2020

# INVITED TALKS

# Learning Space Planning for 3D Indoor Scene Synthesis

at Department of Electrical and Computer Engineering, Concordia University, Canada (Online), Apr., 2025 Indoor Scene Synthesis and Beyond

at Department of Electrical and Computer Engineering, University of Alberta, Edmonton, Canada, Nov, 2024

Deep Learning Meets Compositional Generative AI

at School of Computer Science, Fudan University, Shanghai, China, Sept 2024

# Machine Learning in Compositional Generative AI

at Department of Electronic Engineering and Information Science, USTC, Hefei, China, June 2024

#### Controllable Compositional Modeling in Computer Vision and Graphics

at Imperial-X, Imperial College London, London, UK, Nov 2023

## **Exploring Deep Point-Cloud Robustness**

at GAMES Webinar (Online), Dec 2022

#### Learning Diverse and Controllable 3D Content Generation

at Huawei-SFU Joint Lab Workshop, Vancouver, Canada, Nov 2022