

HANHUI WANG

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1388 1/2 W 23rd St, Los Angeles, California

EDUCATION

Ph.D. in Computer Science

Khoury College of Computer Sciences, Northeastern University (NEU)

Sept.2025 - Present

Advisor: **Prof. Huaizu Jiang**

M.S. in Computer Science

Viterbi School of Engineering, University of Southern California (USC)

Aug.2023 - May 2025

GPA 4.0/4.0

B.Eng. in Computer Science and Technology

School of Computer Science & Technology (SCST)

Sept.2019 - June 2023

Huazhong University of Science and Technology (HUST)

GPA 3.99/4.0 Rank 2/363

★ Selected by SCST for a special class for the most promising students

PUBLICATION & PREPRINTS

1. Fangrui Zhu*, **Hanhui Wang***, Yiming Xie, Jing Gu, Tianye Ding, Jianwei Yang, and Huaizu Jiang. Struct2D: A Perception-Guided Framework for Spatial Reasoning in Large Multimodal Models. *In arXiv 2506.04220 June 2025*
2. **Hanhui Wang***, Yihua Zhang*, Ruizheng Bai, Yue Zhao, Sijia Liu, and Zhengzhong Tu. Edit Away and My Face Will Not Stay: Personal Biometric Defense against Malicious Generative Editing. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2025.
3. **Hanhui Wang**, Huaize Ye, Yi Xia, Xueyan Zhang. Leveraging SAM for Single-Source Domain Generalization in Medical Image Segmentation. *In arXiv 2401.02076 Jan. 2024.*

RESEARCH EXPERIENCE

Research Assistant

TACO Group, Texas A&M University

June 2024 - present

Advisor - **Prof. Zhengzhong Tu**

- Presented a novel perspective for protecting personal images from malicious editing, focusing on making biometric features unrecongnizable post editing.
- Developed a new algorithm, **FACELOCK**, that incorporates facial recognition models and feature embedding penalties to effectively protect against diffusion-based image editing.
- Conducted a crucial analysis of the quantitative evaluation metrics commonly used in image editing tasks, exposing their vulnerabilities and highlighting the potential for manipulation to achieve deceptive results.

Research Assistant

Visual Intelligence Lab, Northeastern University

May 2024 - present

Advisor - **Prof. Huaizu Jiang**

- Introduced **SNAP**, the first unified segmentation model capable of working across different point cloud domains including, part-level, indoor, and outdoor domains.
- Developed SNAP as a versatile model, supporting multiple prompt types, including points, bounding boxes, and text, to enable flexible object segmentation.
- Achieved state-of-the-art performance on multiple benchmark datasets and demonstrated SNAP's utility as a semi-automated labeling tool for real-world applications.

Research Assistant

Embedded and Pervasive Computing Lab, HUST

Sept.2022 - Mar.2023

Advisor - **Prof. Xianzhi Li**

- Modified a Few-shot learning framework for 3D Instance Segmentation (3DIS) to address the problem of the expensive costs of collecting a sufficient amount of annotated point clouds.
- Utilized a Transformer Decoder to generate differentiated kernels to perform instance-wise dynamic convolution.
- Implemented the model using **Python** and **PyTorch** and improved the mean Average Precision results (mAP) by **3.2** percent on the ScanNet V2 dataset.

WORKING EXPERIENCE

Assistant Algorithm Engineer

May 2023 - July 2023

Research & Development Group (RDG), iFLYTEK

- Worked on a 3D Instance Segmentation project aiming to combine the strengths of Clustering- and Transformer-based methods. Our model has achieved a result of **0.796** on the ScanNet V2 AP50 benchmark (higher than the previous state-of-the-art result of 0.787 by then).
- Worked on modifying the indoor scene instance segmentation model to improve performance on outdoor scene datasets.

SELECTED AWARDS & HONORS

China National Scholarship (the highest national wide scholarship for undergraduate students in China)	2020
Outstanding Undergraduates in Term of Academic Performance (the greatest honor for undergraduates in HUST)	2020
Merit Student of HUST	2020, 2021, 2022
Outstanding Graduates of HUST	2023