

# Canyu Zhang

1100 Pulaski St. Apt 123  
Columbia, SC, USA, 29201

czzhang179.github.io/zcy.github.io/  
canyu@email.sc.edu  
646-321-6917

## Education

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**University of South Carolina**

*PhD, Major in Computer Science*

January 2021– May 2024

*Columbia, SC, USA*

**New York University**

*Master of Science, Major in Electrical Engineering*

August 2018–May 2020

*New York, NY, USA*

**Shandong University**

*Bachelor of Engineering, Major in Communication Engineering*

September 2014–June 2018

*Jinan, Shandong, China*

## Working Experience

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**Summer Internship**

*PAII Inc.*

May, 2023 – August, 2023

*Palo Alto, California, USA*

- Using stable diffusion model to generate 3D human sequences based on input music.
- Designing autoregression encoder to make the generated sequence be more harmonious.

**Research Assistant**

*University of South Carolina*

January, 2022 – Present

*Columbia, SC, USA*

- Using transformer for point cloud few-shot semantic segmentation.
- Developing a stratified structure to better learn point cloud local information.
- Using implicit neural representation for image inpainting and super-resolution.
- Distilling information from pretrained inpainting network for image deshadow task.

**SnowVision Research Assistant**

*University of South Carolina*

January, 2021 – December, 2021

*Columbia, SC, USA*

- Developing algorithms for archaeological heritage fragment recognition.
- Using graph neural network for fragment classification and matching.

## Research Publication

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Y. Lu, J. Zhou, S. McDorman, C. Zhang, D. Scott, J. Bukuts, C. Wilder, K. Smith, S. Wang.

Snowvision: Segmenting, Identifying, and Discovering Stamped Curve Patterns from Fragments of Pottery, *International Journal of Computer Vision*, 130:2707–2732, 2022.

Z. Zhao, Z. Wu, X. Wu, C. Zhang, S. Wang. Crossmodal Few-shot 3D Point Cloud Semantic Segmentation, *ACM Multimedia Conference*, 4760-4768, Lisbon, Portugal, 2022.

C. Zhang, Z. Wu, X. Wu, Z. Zhao, S. Wang. Few-shot 3D Point Cloud Semantic Segmentation via Stratified Class-specific Attention Based Transformer Network, *AAAI* 2023.

C. Zhang, Q. Guo, X. Li, S. Wang. SuperInpaint: Learning Detail-Enhanced Attentional Implicit Representation for Super-resolution Image Inpainting.

C. Zhang, X. Li, Q. Guo, S. Wang. SAIR: Learning semantic-aware implicit representation, *ICLR* 2024 Under Review

### *Academic Services*

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Reviewer of AAAI Conference on Artificial Intelligence  
Reviewer of ACM Multimedia  
Reviewer of Pattern Recognition Letters (PRL)  
Reviewer of IEEE Transactions on Multimedia (TMM)

### *Research Interests*

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Computer Vision, Machine Learning, Image Super-resolution, Image Inpainting, Image Denoising, Semantic Segmentation, 3D Point Cloud

### *Specialized Skills*

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Python, Matlab, Java, C, Linux, Bash