

# CHAOYI ZHOU

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## EDUCATION

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Clemson University, US *Jan. 2024 - Present*  
*Ph.D in Computer Science*  
Advisor: Prof. Siyu Huang

University of Southern California (USC), US *Jan. 2021 - Dec. 2022*  
*M.S. in Computer Science (General)*  
Advisor: Prof. Yajie Zhao  
GPA: 3.60 / 4.00

Nanjing University Of Posts And Telecommunications (NUPT), China *Sep. 2016 - Jun. 2020*  
*B.S. in Computer Science and Technology*  
GPA: 3.69 / 5.00

## PUBLICATIONS

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Wu, G., Zhou, J., Yang, J., **Zhou, C.**, and Xiong, Y., 2021. TableRobot: An automatic annotation method for heterogeneous tables. *Procedia Computer Science*, 187, pp.432-439.

Wang, X., **Zhou, C.**, Xub, X. "Application of C4.5 Decision Tree for Scholarship Evaluations." Proceedings of the 10th International Conference on Ambient Systems, Networks, and Technologies (ANT), Science Direct Procedia Computer Science, April 29-May 2, 2019, Leuven, Belgium.

## RESEARCH EXPERIENCE

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**3DGS-Enhancer (NeurIPS 2024 Spotlight, Top 3.5% of 15,671 submissions)** *Jan. 2024 - Present*  
*Graduate Research Assistant*  
*Supervisor: Dr. Siyu Huang, Assistant Professor, Clemson University*  
Leverage 2D video diffusion priors to tackle the 3D view consistency problem, formulated as temporal consistency in video generation. 3DGS-Enhancer restores view-consistent latent features and integrates them with input views via a spatial-temporal decoder, significantly improving the 3DGS model's rendering performance.

**Outdoor Scene Reconstruction and Understanding** *Jun. 2023 - Dec. 2023*  
*Graduate Research Assistant*  
*Supervisor: Dr. Rongjun Qin, Associate Professor, Ohio State University*  
Developed visualization software, a Structure-from-Motion system, and a sky camera SDK for reconstructing outdoor scenes and analyzing radiance, enhancing RGB value recovery for the IARPA challenge.

**Aerial to Ground Novel View Generation** *May 2022 - Jun. 2023*  
*Student Researcher, transitioned to Full-Time Computer Vision Engineer*  
*Supervisor: Dr. Yajie Zhao, Research Assistant Professor, USC*  
Developed synthetic and real outdoor scene datasets using Unreal Engine 5, and implemented a 3D-flow generative model enhanced with NeRF, applying diffusion models and GANs for high-resolution image inpainting and style transfer.

**Mechanical System Defect Detection and Tracking** *Feb. 2022 - May 2022*  
*Student Researcher*  
*Supervisor: Dr. Preetham Aghalaya Manjunatha, SHM Lab, USC*  
Implemented multi-process programs and deep learning models for point cloud registration and feature detection, improving precision and localization through transfer learning.

**Monocular Depth Estimation and 3D Motion Detection** *May. 2021 - Nov. 2021*  
*Research Assistant*

*Supervisor: Dr. Zhaoxin Li, Institute of Computing Technology, CAS*

Developed a multi-scale residual pyramid model for depth and surface normal prediction, and used Structure-from-Motion (SfM) to estimate camera poses and localize 3D targets.

## TECHNICAL SKILLS

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**Programming:** Python, Java, C#, C++  
**Software & Tools:** Computer Vision: OpenCV, Pointcloud Library (PCL), Open3D  
Machine Learning: PyTorch, TensorFlow, NumPy, Pandas  
Simulation: Unreal Engine, Unity, AirSim

## AWARDS

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NYIT Presidential and Dean's Honors List, granted by New York Institute of Technology