Zaijia Yang

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Education

2021 - present Bachelor's Degree at **Hainan University** (Current GPA: 3.75/4)
(Current Average Score: 89.05/100)

Certifications

China University Computer Competition - Group Programming Ladder Match	**2nd Prize - Provincial**	2023
Cross-Strait, Hong Kong and Macao College Students' Computer Innovation Competition	**2nd Prize - Provincial**	2023
Blue Bridge Cup Software Competition C/C++ Programming	**2nd Prize - Provincial**	2024
China Robotics and Artificial Intelligence Competition	**3rd Prize - Provincial**	2023
School Scholarships	**2nd Prize - University**	2023

Projects

Research on robot multi-target grasping detection method Dec. 2022 - Aug. 2022

Studying papers on edge-cloud collaboration, replicating the code for multi-object grasping detection, and validating the image compression transmission method based on GAN implemented with Socket.

StyleGAN-based platform for stylized hair customization Nov. 2022 - Jun. 2023

Replication of StyleGAN and CycleGAN code for hairstyle migration and painting style transformation.

VMAP-based indoor modeling system Dec. 2022 - Nov. 2023

Reproduced the code from the paper and implemented remote modeling based on ROS2.

Investigating Cultural Representativeness in Text-To-Image Models Jun. 2023 - Sep. 2023

Our research comprehensive exploration of T2I models' performance in cultural representativeness, uncovering biases in distribution, diversity, patchwork, and fidelity, after analyzing 193,700 generated images (Stable Diffusion 1.5 /2.1 /Dall-E 2) and 37,600 authentic images .

A study of 3D gaussian splatting Nov. 2023 - present

Attempting to accomplish instance segmentation while generating 3D models in 3DGS, but it has already been done by someone else. Currently, I am experimenting with image enhancement techniques to improve the 3D modeling results in 3DGS, as well as enabling fast visual positioning indoors with weak GPS signals.

Publications

Lili Zhang, Xi Liao, Zaijia Yang, Baihang Gao, Chunjie Wang. Partiality and Misconception: Investigating Cultural Representativeness in Text-To-Image Models (ACM Conference on Human Factors in Computing Systems) (Accepted)

Work Experience

Vice Director of the Peer Service Department, Chun Ming Academy Sept 2022- June 2023
Group Leader of the RobAI-Lab Association at School 2022- present

Skills

Languages Python, C++, JAVA, HTML
Experiences SQL, Linux, LaTeX, Origin, ROS2