

QINGCHENG ZHAO

✉ zhaqch1@shanghaitech.edu.cn · ☎ (+86) 153-875-01026 · 🌐 Github · 📝 blog

🎓 EDUCATION

ShanghaiTech University, Shanghai, China 2021 – Present

Bachelor of Engineering in Computer Science. Expected graduation date: June 2025

Advisors: Prof. Jingyi Yu and Prof. Lan Xu

Overall GPA 3.7/4, ranked 31/178

University of California Berkeley, California, United States of America Aug. 2023 – Dec. 2023

GLOBE Program in College of Engineering, University Of California Berkeley

Overall GPA 3.67/4

🔍 RESEARCH INTERESTS

My primary research interest lies in **3D Vision**, with a specific focus on achieving high-fidelity **3D reconstruction, rendering and driving** of digital humans. Concurrently, I am exploring **generative modeling** techniques to generating, editing and interacting with common objects, and large-scale scenes.

📖 PUBLICATIONS

- [1] Media2Face: Co-speech Facial Animation Generation With Multi-Modality Guidance **SIGGRAPH 2024**
*Qingcheng Zhao**, Pengyu Long*, Qixuan Zhang, Dafei Qin, Han Liang, Longwen Zhang, Yingliang Zhang, Jingyi Yu, Lan Xu
([Project Page](#)) ([Paper](#))
- Single-view Panoptic Reconstruction with Instance-level Diffusion Priors **Under Review**
Qingcheng Zhao, Xiang Zhang, Zeyuan Chen, Yuan Gao, Zhuowen Tu
- Zero-Shot Single Image Panoptic Reconstruction **Under Review**
Yuan Gao, Xiang Zhang, Zeyuan Chen, *Qingcheng Zhao*, Zhuowen Tu

🏢 RESEARCH EXPERIENCE

ShanghaiTech University Mar. 2022 - Present

Research Assistant. Advised by Prof. Jingyi Yu and Prof. Lan Xu

Co-speech Facial Animation Generation With Multi-Modality Guidance SIGGRAPH 2024

- Proposed a diffusion model in latent motion space for co-speech facial animation generation, accepting rich multi-modality guidance.
- Build an efficient variational auto-encoder mapping facial geometry and images to a highly generalized and decoupled expression latent space for expressions and identities.
- Achieved state-of-the-art performance on multiple datasets, outperforming existing methods in terms of both quality and diversity.

University of California San Diego Jul. 2024 - Present

Visiting Scholar. Advised by Prof. Zhuowen Tu

Single View 3D Scene Reconstruction With Generative Prior In Progress

- Proposed a diffusion model for panoptic 3D scene reconstruction from a single RGB image.
- Present a novel generative approach using a tri-plane 2D unet diffusion model conditioned on a projected 3D prior to reconstruct 3D scenes with an efficient yet effective latent space.

INDUSTRY EXPERIENCE

Nvidia Corporation Shanghai, China

Feb. 2024 – Jun. 2024

Software Development Engineer (Internship)

- Build a LLM-powered agent for gameplay with human-like behaviors in most popular games, using a text-based game UI descriptor to interact with GPT-4.
- Enhance the language model with a generalizable visual understanding module to improve the agent's performance in various games.
- Widely deployed in production environment, reduced the human labor and time cost significantly, enabling full automation of the game testing process with minimal configuration.

Deemos Technologies Inc. Shanghai, China

Nov. 2022 – Feb. 2024

Intern Researcher


- Build a real-time 3D interactive avatar system utilizing audio-driven facial expression animation technologies at Global AI developer Conference 2023.
- Build a web application for ChatAvatar project based on DreamFace[2], which can generate 3D avatars from a single image or text prompt.

ACTIVITIES

GeekPie Association

Sep. 2021 - Present

President of GeekPie Association

- Developed  CourseBench, a highly regarded web application that allow students to comment and discuss about courses.
- Organize tech workshop and provide technical support in algorithms for members and new students.

CS100: Introduction to Programming

2023, 2024

Senior Teaching Assistant

- Give office hours and recitation classes;
- Assist with homework assignments and corrections.
- Won the SIST Outstanding Teaching Assistant Award.

HONORS AND AWARDS

ShanghaiTech International Exchange Program First-Class Scholarship, ShanghaiTech University 2024

Outstanding Teaching Assistant, SIST, ShanghaiTech University 2023

Merit Student(top 2%), ShanghaiTech University 2022

Outstanding Worker, ShanghaiTech Student Union 2022

Bronze Medal, Award on The 2021 China Collegiate Programming Contest, Harbin Site 2021

One-hundred Fourth Place, Award on The 2021 ICPC Asia-East Continent Final Contest 2021

SKILLS

- Programming Languages: Python > C/C++ >= Javascript == Typescript > Ruby > MATLAB
- Tools: PyTorch, Blender, OpenCV, Git, \LaTeX , Docker, Vue, React, FastAPI, Node.js, Rancher, Kubernetes,

REFERENCES

[1] Q. Zhao, P. Long, Q. Zhang, D. Qin, H. Liang, L. Zhang, Y. Zhang, J. Yu, and L. Xu, "Media2face: Co-speech facial animation generation with multi-modality guidance," in *ACM SIGGRAPH 2024 Conference Papers*, 2024, pp. 1–13.

[2] L. Zhang, Q. Qiu, H. Lin, Q. Zhang, C. Shi, W. Yang, Y. Shi, S. Yang, L. Xu, and J. Yu, "Dreamface: Progressive generation of animatable 3d faces under text guidance," *arXiv preprint arXiv:2304.03117*, 2023.