

Xinyi Zhou

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EDUCATION

Chu Kochen Honors College, Zhejiang University

B.S. in Computer Science

GPA: 3.89/4.00 (top 5% out of 317)

Zhejiang, China

Expected June 2024

EXPERIENCE

Undergraduate Research Assistant

May 2023 – Present

Advisor: Prof. Lingjie Liu

University of Pennsylvania

- **Topic:** real-time generative textures for 3D-aware head avatars
- Synthesized head avatars by combining generative textures and 3D morphable model (3DMM)
- Accelerated 3D human synthesis with a fast differentiable rasterizer to achieve real-time head avatar generation
- Read paper covering various generative models, especially GANs and diffusion models for 3D reconstruction

Undergraduate Research Assistant

Feb. 2023 – Present

Advisor: Prof. Weiwei Xu

State Key Lab of CAD&CG, Zhejiang University

- **Topic:** synergizing radiance and occupancy fields for live human performance capture
- Reconstructed 3D human from multi-view RGBD images by applying TSDF fusion algorithm
- Involved in human performance dataset collection process and figured out how RGBD cameras work

Artificial Intelligence Research Intern

Sept. 2023 – Dec. 2023

Advisor: Prof. Shengyu Zhang

Zhejiang Lab

- **Topic:** sparse-view reconstruction for anime characters
- Improved appearance of generated avatars with a special viewpoint-aware cross-attention for feature aggregation
- Processed 3D assets scraped from an open source community, generating renderings to establish our dataset
- Involved in writing an 8-page paper and deployed the project page

PROJECTS

IoT thermo-hygrometer | Python, C, ESP32, Raspberry Pi, MQTT

May 2023 – June 2023

- Programmed ESP32 with MicroPython to read data from the humidity and temperature sensor, DHT11
- Utilized ESP32's integrated Wi-Fi module to transmit data under MQTT protocol
- Displayed thermo-hygrometer data on a LED matrix by implementing a character device driver for Raspberry Pi

EasyX | Java, Android Studio

July 2022 – July 2022

- Developed a fitness app compatible with smart eyewear, where users can interact with instructional videos through the sensors embedded in the eyewear, relieving users' hands for better experience
- Added voice control by integrating an open source speech recognition API
- Recorded a demo video and presented our work
- Group work finished in 6-day **NUS-HCI Summer Bootcamp** of Future Interaction for Smart Glasses

MyNote | C++, Qt, MySQL

Apr. 2022 – June 2022

- Implemented a text editor for taking diary that supports quick search by date, tag or other attributes
- Designed graphical user interfaces (GUIs) with Qt to handle events
- Accelerated data fetching by connecting to databases, storing meta data and executing queries

HONORS AND AWARDS

Zhejiang University First-class Scholarship (Top 10%)

2022

granted by Zhejiang University

First Prize in Chinese Mathematics Competitions, Zhejiang Division

2021

granted by Zhejiang Mathematical Society

TECHNICAL SKILLS

- **Languages:** Python, C, C++, MySQL, Assembly, Shell, JavaScript, HTML, CSS, Java
- **Tools:** Git, VS Code, Visual Studio, Markdown, Latex, Blender, Maya, Photoshop