

Education

Computer Science Ph.D. Student

Research area: Human Computer Interaction

B.Eng. with Honors in Artificial Intelligence (Turing Class)

Outstanding honored undergraduate in **Chu Kochen Honors College**

President of the Morningside Scholars Program in class 2023

University of Minnesota, Twin Cities

Aug 2024 – Now

Zhejiang University

Sep 2020 – June 2024

Research Interest & Coursework

Research interest

AR/VR/HCI/HAI/LLM/Data Visualization/AI x XR

Coursework

Machine Learning/Computer Vision/Natural Language Process/Data Visualization
Programming in Virtual Reality/Information and Interactive Design

Research Experience

Harvard Visual Computing Group, Harvard University

Cambridge, USA

Research Intern with **Prof. Hanspeter Pfister** and **Prof. Zhutian Chen**

Jan 2024 - May 2024

- Develop a 3D immersive data analysis system enabling in-situ and ex-situ combined workflow
- WebXR platform oriented design, combining hand gesture interaction into the immersive analytics workflow
- Design new data analysis paradigm for analyzing and viewing 2D/3D, static/dynamic, tangible/virtual data

Stanford HCI Group, Stanford University

California, USA

Research Intern with **Prof. James Landay** and **Ph.D Candidate Jackie Yang**

Jul 2023 - Sep 2023

- **SwiftGenieXR** — a declarative programming framework, exploring generative AI in XR workspace
- Implement a Swift-based framework facilitating voice/hand input and LLM interaction in Apple Vision Pro
- Harness SwiftMacro and SwiftData to tackle environment understanding and persistent data storage problem

ZJU International Design Institute, Zhejiang University

Hangzhou, China

Student Research Training Program advised by **Prof. Lingyun Sun** and **Prof. Zejian Li**

Mar 2022 - Jun 2023

- Design non-parametric algorithms to improve the sampling efficiency in DDIM/DDPM diffusion models
- Implement the proposed algorithm in baseline diffusion models and deploy them on training
- Collect and organize experimental image dataset, analyze and visualize the experiment result

Project

Handbot——Apple WWDC2023 Swift Student Challenge

Human-centered AI

[Github] [Youtube]

Apr 2023

- A swift playground aiming to encourage users to think critically, and recreate all the AIGC content.
- Concentrate the design paradigm on three information modals — text, image and audio.
- First solo work in collaboration with ChatGPT and learn a lot about human AI interaction

Transciscense——Immersive Game Watching App For The Hearing-impaired

Accessibility Design

[Github] [Youtube]

Jun 2023

- A multimodal-designed swift app for the hearing-impaired users to immerse in watching sports game.
- Utilize the haptic and visual information-color, shape, vibration to compensate for the listening channel
- Design a data visualization of the game watching experience for better review and summary

Is raining threes worth it?——NBA 3-pointer Data Visualization Project

Data Visualization

[Website] [Youtube]

Dec 2022

- A front-end interactive visualization website displaying the NBA 3-pointers data, received 17000+ views
- Analyze the impact of the three-point shot on the game and the player from multiple perspectives.
- This project enlightens me to transition from 2D visualization to immersive 3D visualization

Cut_Fruits_3D——immersive Fruit Ninja VR Game

Virtual Reality

[Github] [Youtube]

Jun 2023

- An immersive 3D version Fruit Ninja VR Game, received 500+ views, developed by Unity3D

- Support object collision detection and vibration feedback in controller, along with sound effect feedback
- Encourage user to stretch their body and move around, thus good for player's health

Professional skills

Programming	Swift/Python/C/C++/C#/Unity3D/WebXR/HTML/CSS/Javascript/Pytorch/Bash
Tools	LLM/Xcode/Swift Playground/Apple Vision Pro/Meta Quest/PICO/Pr/PS/Au/Figma
Language	English/Mandarin/Cantonese/a little bit French

Extracurricular activities

Morningside Cultural China Scholarship Program	President
<i>social science and Chinese traditional culture</i>	<i>May 2023 - Dec 2023</i>
<ul style="list-style-type: none"> • A program fosters deep understanding of Chinese traditional culture as well as leadership • Provide chance to go on academic visit to USA, Europe, Singapore, Hongkong and Macau 	
Lanshiren Mountain and Forest hiking club	Leader
<i>sports and environmental protection</i>	<i>Sep 2022 - Jun 2023</i>
<ul style="list-style-type: none"> • Non-profit organization arouses people's interest into hiking and protecting the natural environment • This club will organize picking rubbish and cleaning up the natural environment at regular intervals 	
Kuafu running and jogging club	Leader
<i>sports</i>	<i>Sep 2023 - Dec 2023</i>
<ul style="list-style-type: none"> • Campus association, which encourages running and long-distance running(e.g. marathon) for exercise 	
Sichuan and Chongqing intangible cultural heritage summer social practice	Member
<i>social practice and community commitment</i>	<i>Aug 2022</i>
<ul style="list-style-type: none"> • Fieldwork records protect and inherit China's intangible cultural heritage in southwest China's provinces 	
Inner Mongolia poverty alleviation education summer social practice	Member
<i>social practice and community commitment</i>	<i>Aug 2021</i>
<ul style="list-style-type: none"> • Concentrate on the economy and education situation of the less developed inland areas of China 	
Youtube and Bilibili platform vlogger	Creator
<i>Media art and content creation</i>	<i>Aug 2020 - present</i>
<ul style="list-style-type: none"> • Passionate about spreading knowledge and what I've learned to help others on streaming platforms 	

Teaching Experience

Hangzhou Yungu Primary School Swift CCA program	Teacher
<i>SwiftUI teaching</i>	<i>October 2023 - present</i>
<ul style="list-style-type: none"> • Teach SwiftUI and Swift programming knowledge to three primary school students 	

Honors

Second-prize Scholarship of Zhejiang University	Oct 2023
2022 Hangzhou Olympic Asian Games Conditional Volunteer	May 2023
Second-prize of National Mathematics Competition for college students	Jan 2023
Top 5 course projects of Introduction to Data Visualization	Jan 2023
Second-prize Scholarship of Zhejiang University	Oct 2022
Chu Ko Chen College summer social practice second prize	Sep 2022
Second-prize of Zhejiang province students physics innovation theory competition	Jan 2022
Leading Scholarship of Zhejiang University	Oct 2021
Chu Ko Chen College summer social practice second prize	Sep 2021
Best Movie Editing Technique award in class competition of Chu Ko Chen College	Nov 2020

Hobbies

Sports	swimming/basketball/hiking/jogging/cycling/ping-pong
Arts	photography/vlog/podcast/saxophone/movie