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Yunkai Xu

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Design Portfolio | Google Scholar

Education

Penn State University *Aug 2024 – Now*
Ms in Informatics

- GPA: TBD
- **Coursework:** Data Mining

Zhejiang University *Sept 2020 – June 2024*
BS in Industrial Design

- GPA: 3.97/4.0 6/55
- **Coursework:** Information Product Design, Information & Interaction Design, User Experience Design, Computer Game Programming

Experience

Research Internship *Hangzhou, China*
International Design Institute of Zhejiang University *April 2023 – April 2024*

- Contributed to an AI-based AAC tool and 3D printing projects in the laboratory and submitting to CHI'24, UIST'24.
- Submitted a paper to CHI'24 as **the first student author**.
- Submitted a paper to UIST'24 as **the second student author**. (Accepted, 26%)

Core Founder Member *Hangzhou, China*
Pixel Leap *April 2022 – April 2023*

- Worked as a character animator (Unity engine)
- Created character animations using motion capture devices and wrote animation scripts in Unity.

Publications

Xhair: 3D Printing Hair-like Structures with Multi-form, Multi-property and Multi-function Oct 2024

Guanyun Wang, Junzhe Ji, ***Yunkai Xu***, Lei Ren, Xiaoyang Wu, Chunyuan Zheng, Xiaojing Zhou, Xing Tang, Boyu Feng, Lingyun Sun, Jiaji Li

[Full Paper]

SocializeChat: a GPT-based AAC Tool for Social Communication Through Eye Gazing Oct 2023

Yuyang Fang, ***Yunkai Xu***, Zhuyu Teng, Zhaoqu Jiang, Wei Xiang

[Full Paper]

Projects

SocializeChat *[View PDF]*

- Designed a mobile application with ChatGPT for people with physical disabilities, helping them to have fluent and engaging social conversations with others.
- Tools Used: Swift, Python, User Study, Figma, Research Writing

SmartLumina: In-car Lighting Interactive Design *[View PDF]*

- Developed a new interaction system designed for both autonomous drivers and regular passengers familiar with these vehicle conditions, enabling natural interaction through gestures and provides relaxing feedback through lighting.

- Tools Used: User Study, Python, Arduino

MOgic: Haptic Feedback Gloves for Museum Interaction *[View Video]*

- Developed a new interaction system with a haptic gloves in museums, which helps visitors to
- Tools Used: Unity, Leap Motion, C#, Embedded Development

Chasing: A VR Parkour Game *[View PDF]*

- The theme style of this VR parkour game is "Data Punk" parkour game. Players experience the game from a first-person perspective and interact using VR controllers.
- Tools Used: Unity, C#, Oculus Development

Glacial Data: A data visualization project *2022*

- Visualized glacial melting data in recent 100 years
- Tools Used: Data Visualization

Memotion Diary *2022*

- Designed a WeChat mini program, which allows users to record their emotions in a diary every day and review them repeatedly in the future.
- Won **the third prize in East China**.
- Tools Used: Web Development, HTML/CSS

Honors and Awards

2024 Outstanding Graduate Thesis

2020 - 2022 Academic Excellence Student Model

2020 - 2022 Third Prize, Academic Scholarships of Zhejiang University

2022 Third Prize in East China, China Collegiate Computing Contest

2022 Second Prize, Zhejiang University Industrial Design Competition

Technologies

Languages: C++, C, Java, Python, C#, HTML/CSS

Technologies: Oculus, Arduino

Languages: TOFEL(106)