

Yunkai Xu

📍 State College ✉ yqx5322@psu.edu ☎ +1814-280-6040 🔗 Xuyk021@github.io in LinkedIn-Yunkai
📁 Design Portfolio 🎓 Google Scholar

Education

Penn State University <i>Ms in Informatics</i> <ul style="list-style-type: none">◦ GPA: 4.0/4.0◦ Advisor: Dr. Saeed Abdullah◦ Coursework: Data Mining, Foundation of Human-centered Design	<i>Aug 2024 – Now</i>
Zhejiang University <i>BS in Industrial Design</i> <ul style="list-style-type: none">◦ GPA: 3.97/4.0 6/55◦ Advisor: Dr. Guanyun Wang◦ Coursework: Information Product Design, Information & Interaction Design, User Experience Design, Computer Game Programming	<i>Sept 2020 – June 2024</i>

Experience

Research Internship <i>Pennsylvania State University</i> <ul style="list-style-type: none">◦ Contributed to an GPT-based voice assistant to deliver cognition simulation therapy for people with dementia.	<i>State College, USA</i> <i>November 2024 – NOW</i>
Research Internship <i>International Design Institute of Zhejiang University</i> <ul style="list-style-type: none">◦ 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%)	<i>Hangzhou, China</i> <i>April 2023 – April 2024</i>
Core Founder Member <i>Pixel Leap</i> <ul style="list-style-type: none">◦ Worked as a character animator (Unity engine)◦ Created character animations using motion capture devices and wrote animation scripts in Unity.	<i>Hangzhou, China</i> <i>April 2022 – April 2023</i>

Publications

Xhair: 3D Printing Hair-like Structures with Multi-form, Multi-property and Multi-function Guanyun Wang, Junzhe Ji, Yunkai Xu , Lei Ren, Xiaoyang Wu, Chunyuan Zheng, Xiaojing Zhou, Xing Tang, Boyu Feng, Lingyun Sun, Jiaji Li [Full Paper] 🔗	<i>Oct 2024</i>
SocializeChat: a GPT-based AAC Tool for Social Communication Through Eye Gazing Yuyang Fang, Yunkai Xu , Zhuyu Teng, Zhaoqu Jiang, Wei Xiang [Full Paper] 🔗	<i>Oct 2023</i>

Projects

SocializeChat <ul style="list-style-type: none">◦ Designed a mobile application with ChatGPT for people with physical disabilities, helping them to have fluent and engaging social conversations with others.	[View PDF] 🔗
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- 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 Undergraduate 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(108)