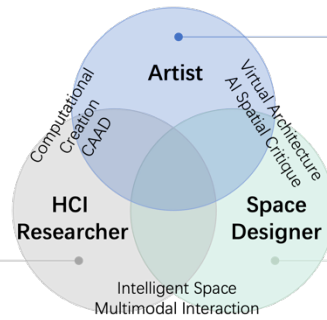


Research and Exhibition Experience

[* under review]

- [4] **ToG** (ACM Transactions on Graphics)*
- [5] **CHCI 2022**, Technical Demonstration
- [6] **HRI 2024-LBR** (Late Breaking Report Paper)
- [7] **HRI 2024-SDC** (Student Design Challenge)

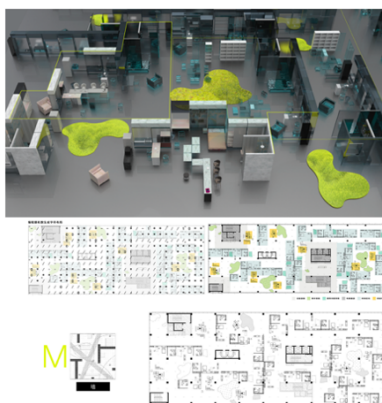


- [1] **NeurIPS 2023** Creative AI Track, New Orleans, USA
- [2] **ICIDS 2023** art exhibition (International Conference on Interactive Digital Storytelling), Kobe, Japan
- [3] Electronic Theater at **ChinaGraph 2022**, Qinghai, China
- [8] Shortlist Exhibition at Glasgow Science Centre, UK, 2021
- [9] China-Japan-South Korea Landscape Architecture Conference, Beijing, 2021

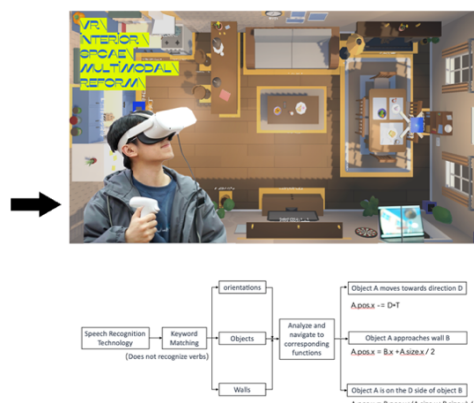
Personal experience and interests: I am a designer with a composite background in art, spatial design, and Human-Computer Interaction. My focus lies in constructing art and design systems, and leveraging cutting-edge technologies such as HCI multimodal interaction, VR/AR, and AI to create a positive impact.

My interest in design originated from traditional interior space construction. As a child, I changed schools five times due to my parents' work, experiencing different rural and urban environments. This journey made me realize the profound impact living spaces have on shaping one's life. Graduating with **rank 1** in Environmental and Spatial Design during my undergraduate studies (excellent graduate, **top 1% in 3000**), I delved into addressing urban housing issues. To tackle the challenges of frequent relocations and the multifunctional needs of small living spaces for young renters, my thesis "Format/Reform" explored automated methods for interior layout planning. I proposed a prototype community system emphasizing the flexibility and reconfigurability of internal spaces. Recognized by professors, my work was collected by the college and showcased at **ICADE 2021**.

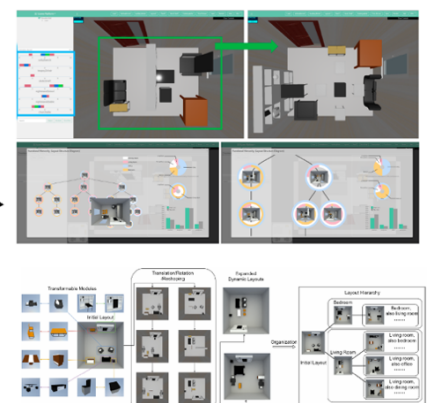
As my research progressed, I discovered the limitations of traditional static spatial design systems in enabling user participation. **During my master's study, I began exploring the application of interactive technologies in spatial design system.** Collaborating with Prof. Zhang Songhai and Dr. Zhang Shaokui from the CS department, I focused on reconstructing indoor scenes using VR-based multimodal interaction. Through design and various user experiments, I validated the feasibility and efficiency of this interaction method, leading to acceptance at **CHCI 2022** (Technical Demonstration). In the summer of 2023, I joined the HCI and Media Integration Lab and collaborated with Dr. Zhang. We developed an online design system platform with deformable modules and dynamic layouts and submitted it to the **ToG journal** (under review).



Stage1: Design space prototype



Stage2: Interaction enhancement



Stage3: Automation platform

Exploring beyond human-scale space design, **I turned my attention to larger environmental scales and specialized design systems, such as ecological ecosystems or fictional artificial intelligence systems.** Advocating for **animal rights and ecological landscapes**, I initiated the "Egret Island" project, aiming to reintroduce biogenic materials and vegetation to restore the community through extensive research on local history, policies, and ecosystem dynamics of egrets. The project was shortlisted for the "Reimagining Museums for Climate Action Competition" exhibition at Glasgow Science Center in the UK. As for the intersection of AI and design system, I dived into **cultural communication and understanding** and led the "Beyond Borders Journey" project supervised by Professor Xiang Fan. Leveraging CycleGAN and diffusion models, I constructed a virtual culturally-fused world via pavilions as the medium. The work was exhibited at ICIDS 2023 art gallery. Regarding the **specificity of senses and perception**, my "Blind Photographer's Viewfinder" project used AI techniques to transform the surrounding environment into a multimodal representation, aiding **visually impaired individuals** in constructing a virtual space based on auditory cues. The project aimed to deepen the understanding and experience of sensory impairment for people with normal senses. Furthermore, as an artist, I take a **critical perspective on the generative AI technology** and actively rethink its impact. By blending the authentic and synthetic scenarios, I showcased an unreliable environment that leads to deceived visual perception, which emphasized the importance of other body sensors in the era of genAI. This project was accepted at NeurIPS 2023 (Creative AI Track). I also focus on human-robot interaction and emotional accompaniment, and the robot interaction design "OBRO" was published as the first author (co lead) in HRI2024 LBR (Late Breaking Report Paper).