Ke Zhou

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Education

University of Chongqing Sep 2021 – Jun 2024
Bachelor of Economics and Business in Finance (GPA: 91/100 rank: 6/38) *Chongqing, China*

Research Interest

Virtual/Augmented Reality, Human-Computer Interaction , Data Visualization, Human-Robot/AI Interaction

Research Experience

HCI Lab, Institute of Software, Chinese Academy of Science Jan 2024 – Present
Research Intern advised by Prof. Han Teng *Beijing, China*

- ***Immersive telesurgery system considering different remapping relations in VR.*** Designed and simulated an immersive telesurgery system and explored the remapping impact of saptial head-hand relations in VR telesurgery.
- ***Optimized measurement method on evaluating transient physiological discomfort during VR locomotion.*** Identified and evaluated three continuous measurement methods and expanded traditional measurement methods to evaluate transient physiological discomfort to optimize the VR experiences utilizing the measurement data.

VCCM VPI, TAMU Apr 2024 – Present
Research Intern advised by Prof. Wai Tong *College Station, Texas/Remote*

- ***Affordance-Based system for Spatial Tangible Interaction.*** Designed and evaluated an optimization function considering the physical constraints, affordance factors and user intention. Designed a system to apply the optimization function in AR environments to help users select optimized objects and digital functions for specific task.

Publication(* for equal contribution)

Exploring the Remapping Impact of Spatial Head-hand Relations in Immersive Telesurgery
Tianren Luo, **Ke Zhou**, Pengxiang Wang, Shuting Chang, Gaozhang Chen, Hechuan Zhang, Xiaohui Tan, Qi Wang, Teng Han, Feng Tian
Under review for ACM CHI'25

Handows: An Interactive Window Management System for Mixed Reality
Jin-Du Wang, **Ke Zhou***, Xiang Li*, Haoyu Ren, Per Ola Kristensson, Zhongmin Cai
Major revision for ACM ISS'24

Continuous Measurement Methods for Transient Physiological Discomfort in VR Locomotion
Tianren Luo, Pengxiang Wang, Shuting Chang, **Ke Zhou**, Nianlong Li, Yulong Bian, Xiaohui Tan, Qi Wang, Teng Han, Feng Tian
Under review for ACM CHI'25

Projects

Handows – An Interactive Window Management System for Mixed Reality VR/AR

- Integrated the basic functionalities of existing computing device window management systems into HandPad and provided tactile feedback from the user's hand area to provide stability for users' interaction behaviors
- Designed the HandPad, allowing users to choose, close, swap and scale the open windows by manipulating the HandPad

Technical Skills

Programming Languages: Python, Java, C#, Javascript, Matlab, HTML/CSS
Applied statistics and data analysis: R, Stata, python
Quantitative research methods
Game Engines: Unity