Zhengyang Li

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RESEARCH INTERESTS

Adaptive Interfaces; Physiological and Behavioral Sensing; Human Modeling
I am interested in using physiological and behavioral data to understand human states and intentions, and designing systems that adapt accordingly. I enjoy analyzing human data and designing experiments to evaluate how these adaptations affect performance and user experience.

EDUCATION

The University of Texas at Austin **Austin, TX**
Incoming M.S. Student in Information Science *Jan. 2027 – Dec. 2028 (expected)*
School of Information

Yunnan University **Kunming, China**
B.A. in Visual Communication Design *Sept. 2022 – June 2026*
Joint Program with Michigan Technological University
Selected Coursework: User Experience Design, Interaction Design, Information Design, Statistics, Python, Microeconomics

RESEARCH EXPERIENCE

Tsinghua University Future Laboratory **Beijing, China**
Research Intern, supervised by Dr. Yang Jiao *May 2026 – Aug. 2026*

- Investigated smart sleep technologies through literature review and analysis of user needs and use scenarios, informing concepts for personalized sleep support, relaxation guidance, and context-sensitive wake-up strategies.
- Also contributed to research on how robots convey gentleness through movement and material properties; second author on a manuscript submitted to CHI 2027.

Tsinghua University Pervasive HCI Laboratory **Beijing, China**
Research Intern, Project Mentor: Huadong Wang *Feb. 2025 – June 2025*

- Contributed to **Brainow**, a context-aware personal knowledge management system, through literature review, user research, and interaction design.
- Implemented front-end features using React/Vue, including the Knowledge Card Sharing module.

SELECTED RESEARCH PROJECT

Mind-Adaptive Space: EEG-Informed Adaptive VR Environment
Undergraduate Thesis Project Page

- Investigated users' responses to room height, partition count, window size, and furniture density through VR experiments and EEG recordings.
- Processed EEG frequency-band data in Python and derived individualized weights from variability measures to construct a cognitive-load index.
- Used the index to inform parametric spatial adjustments with Rhino/Grasshopper and Unity on Meta Quest 2; investigated users' responses through behavioral observation and memory tasks.

PUBLICATIONS

- **Cognitive Load-Driven VR Memory Palaces: Personalizing Focus and Recall.**
  Zhengyang Li, Hailing Deng. *HCII 2025, Poster.*
- **Seasonal Perception and Sentiment in Urban Scenes: A Multimodal Time-Series Study Using Social Media Data.**
  Yan Lan, Jinghan Liu, **Zhengyang Li**, and Han Tu*. *eCAADe 2025.*

SKILLS

Data Analysis & ML	Python, PyTorch, Machine Learning and Deep Learning Applications, Regression Modeling, UMAP, EEG Data Processing
Programming	JavaScript, React, Vue, Node.js, D3.js
Research Methods	Experimental Design, Controlled User Studies, Behavioral Observation, User Interviews, Survey Design, Usability Testing, Literature Review
Design & Prototyping	Unity (VR Prototyping), Rhino/Grasshopper (Parametric Modeling), Figma, Adobe Photoshop, Adobe Illustrator
Languages	Chinese (Native), English (Proficient)