# Zhaohui Liang

■ liangzhaohui22@mails.ucas.ac.cn | ★ https://liangzhaohui.github.io/ | ♠ liangzhaohui

## **Education** \_

#### **University of Chinese Academy of Sciences**

Beijing

MS in CS | Advanced Interactive Technology Laboratory | Advised by Guihua Shan, Yang Wang

Sep. 2022 - June. 2025

GPA: 3.75/4.0 | Research Interest: HCI, Visualization

Sichuan University Chengdu

BS in CS with Honors | Visual Computing Lab | Mentored by Min Zhu

Sep. 2018 - Jun. 2022

GPA: 3.70/4.0 | Research Interest: HCI, Visualization

# **Publications and Manuscripts** \_\_\_\_\_

- [1] **Zhaohui Liang**†, Yonglin Chen†, Naser Al Madi, Can Liu. "Desirable Unfamiliarity: Insights from Eye Movements on Engagement and Readability of Dictation Interfaces," under review for ACM CHI 2025, in second round (RR).
- [2] Nanyi Wang<sup>†</sup>, **Zhaohui Liang**<sup>†</sup>, Xipei Ren. "Exploring Emotional Responses of Different Users to Narrative and Divergent AI-Generated Content in Human-AI Co-Creation: Evidence from fNIRS," *under review for Computer in Human Behavior*:
- [3] **Zhaohui Liang**<sup>†</sup>, Xiaoyu Zhang<sup>†</sup>, Kevin Ma, Zhao Liu, Xipei Ren, Kosa Goucher-Lambert, Can Liu. "*StoryDiffusion*: How to Support UX Storyboarding With Generative-AI," *under review*. [Arxiv] [Github]
- [4] **Zhaohui Liang**, Guan Li, Ruiqi Gu, Yang Wang, Guihua Shan. "SampleViz: Concept based Sampling for Policy Refinement in Deep Reinforcement Learning," 2024 IEEE 17th Pacific Visualization Conference (Pacific Vis), Tokyo, 2024, pp. 359-368. [Link] [Github]
- [5] Zhaohui Liang, Min Zhu, Lin Yao, Xiangkun Wang and Mengqi cao. "Survey of Visualization Methods on Academic Citation Information," Computer Science, 2022, 49(04): 88-99. (in Chinese)

# Academic Experience \_\_\_\_\_

#### ACM CHI conference on Human Factors in Computing Systems 2025

Remote

Reviwer Oct. 2024 - Present

IEEE Pacific Visualization Symposium (PacificVis) 2024

Tokyo

Presentation April. 2024

# **Research Projects**

## **Investigating Gaze Patterns in Using Dictation Interfaces to Reduce Reading Cost (Leader)**

Remote

City University of Hong Kong | Can Liu

Colby College | Naser Al Madi

Mar. 2024 - present

- Designed and implemented five different dictation interfaces, optimized four distinct algorithms, and enabled rapid iteration of transcribed text.
- Designed experiments to collect gaze patterns in five dictation interfaces.
- Quantitatively analyzed users' eye-tracking data, and visualized the analysis results.
- Conducted academic writing and summarized the key takeaways for improving the dictation interface.

#### **Enhancing Storyboard Creation with LLM and Diffusion Model (Leader)**

Remote

City University of Hong Kong | Can Liu

University of California, Berkeley | Kosa Goucher-Lambert

June 2024 - Feb. 2024

- Implemented text-to-text and text-to-image generative models for storyboard creation.
- Designed a co-creation pipeline for storyboard creation, enabling collaboration between humans and AI.
- Conducted a user study to identify user-directed and AI-directed strategies, gaining insights into how users incorporate Generative AI into their workflows.

#### Interactive Policy Refinement and Explainability in Deep Reinforcement Learning (Leader)

Beijing

University of Chinese Academy of Sciences | Guihua Shan

Jan. 2022 - Apr. 2023

- Proposed a region-aware hierarchical reinforcement learning algorithm.
- Developed a reinforcement learning path planning visualization system focused on model interpretability.
- Designed and implemented user study to validate the system's effectiveness in model optimization and user experience.

#### Investigating Users' Emotional Responses to AI-Generated Content with fNIRS device

University of Chinese Academy of Sciences

Feb. 2024 - Now

Research on Visualization and Alignment of Multivariate Event Sequence

Hangzhou

Beijing

Zhejiang University | Yingcai Wu

Jun. 2021 - Aug. 2021

#### Research on Visualization in Academic Citation Data

Chengdu

Sichuan university | Min Zhu

Oct. 2020 - Apr. 2021

# Awards and Honors \_

Jun. 2023	Honorary Title: "Excellent Student of University of Chinese Academy of Sciences" top 10%	Beijing
Jun. 2022	Honorary Title: "Outstanding Graduate of Sichuan University"	Chengdu
Apr. 2021	Contest: Honorable Mention in "American College Mathematical Modeling Competition (MCM/ICM)"	
Oct. 2020	Scholarship: "Yu Zhang Excellence Scholarship" top 5%	Chengdu

## **Technical Skills**

Front-end Programming React, Vue, TypeScript, HTML/CSS

Back-end Programming Python, Node, GPT, Flask, Pandas, Sklearn, SQL

**Data Visualization** D3, Vega-lite, Echarts

User Experience Skills Quantitative Research, Qualitative Research, Experiment Design, Data Analysis, UX Design

Keywords Generative AI, Dictation System, Visual Analytic System, Machine Learning, Prompt Engineering

## References \_\_\_\_

· Can Liu

Ph. D, Associate Professor, at the School of Creative Media, City University of Hong Kong, Hong Kong

**■** canliu@cityu.edu.hk

Kosa Goucher-Lambert

Ph. D, Assistant Professor, at Department of Mechanical Engineering, University of California, Berkeley

➤ kosa@berkeley.edu

Naser Al Madi

Ph. D, Assistant Professor, at Department of Computer Science, Colby College

■ nsalmadi@colby.edu

· Guihua Shan

Ph. D, Professor, at University of Chinese Academy of Sciences, Beijing

≤ sgh@cnic.cn

• Guan Li

Ph. D, Assistant Professor, at University of Chinese Academy of Sciences, Beijing

✓ liguan@sccas.cn

· Yang Wang

Ph. D, Senior Engineer, at University of Chinese Academy of Sciences, Beijing

wangyang@sccas.cn

• Min Zhu

Ph. D, Professor, at college of Computer Science and technology, Sichuan University, Chengdu

zhumin@scu.edu.cn