Zihan Gao

✉ zgao247@wisc.edu | ⌂ www.zihangao.com | in www.linkedin.com/in/zihan-gao-520a92252

Research Interest

I have delved into understanding the complexities faced by individuals, particularly those undergoing significant social transitions like migration for employment and assimilating into unfamiliar terrains. My endeavors focus on deciphering nuanced, often implicit localness-centric information, trying to address the existing data voids in contemporary systems like LLMs. I aim to develop innovative tools that seamlessly bridge the divide between abstract notions, such as localness, and tangible, quantifiable data. Furthermore, I have examined the ramifications of permanent suspensions on social media platforms. My research extends beyond a singular platform, shedding light on content moderation's ripple effects across the broader digital landscape. I am committed to unraveling the behaviors of deplatformed users and providing insights to inform judicious decision-making processes related to permanent suspensions, ensuring a balanced and inclusive digital ecosystem.

Education

University of Wisconsin-Madison   *Madison, WI*
PhD Student   *09/2021 - present*
• Advisor: Dr. Jacob Thebault-Spieker

Peking University   *Beijing, China*
B.S. in Information Science, B.S. in Psychology   *09/2017 - 07/2021*
• Graduate with Honors
• Undergrad research advisor: Dr. Pengyi Zhang

Publications

Published

Zihan Gao, Jacob Thebault-Spieker. 2024. Investigating Users' Responses to Permanent Suspension on Social Media. In Proceedings of the ACM on human-computer interaction (CSCW 2024)

Zihan Gao, Jiepu Jiang. 2021. Evaluating human-AI hybrid conversational systems with chatbot message suggestions. In Proceedings of the 30th ACM International Conference on Information & Knowledge Management (CIKM 2021)

Jieli Liu, **Zihan Gao**, Pengyi Zhang. 2020. Exploring how topic characteristics influence online discussion quality. In Proceedings of the Association for Information Science and Technology (ASIS&T 2020)

In Review

Zihan Gao, Justin Cranshaw. Jacob Thebault-Spieker. Journeying Through Sense of Place with Mental Maps: Characterizing Changing Spatial Understanding and Sense of Place During Migration for Work (Submitted to CHI 2024)

Selected Projects

Investigating Participant Numbers's Impact on the Generalizability of User Studies   *09/2021 - 11/2021*
• Orchestrated an information retrieval user experiment leveraging the Amazon Mechanical Turk crowd-sourcing platform
• Employed Python to systematically sample from groups ranging from 5 to 500 participants out of an overall 500 participants
• Applied one-way ANOVA to scrutinize the effects of task characteristics on user search behaviors and perceptions. Conducted statistical analyses to discern patterns and variations, ultimately assessing the influence of participant numbers on study results

Optimizing the Construction of Search Trails *01/2021 - 06/2021*

- Developed retrieval and generative chatbots using Retrieval and Generative Transformer Memory Networks, targeting varied response mechanisms
- Fine-tuned models with the Wizard of Wikipedia dataset for enhanced semantic coherence and context-awareness
- Conducted user experiments via Amazon Mechanical Turk, assessing feedback against various chatbot suggestions
- Applied ANOVA and multilevel regression in Python for detailed insights into user interactions across chatbot systems

Awards, Fellowships, & Grants

2021 **SIGIR Travel Grant**, SIGIR
Graduate with Honors, Peking University

2020 **Annual Excellent Student**, Peking University

Teaching Experience

Spring 2022 - Fall 2023 **Data and Algorithms: Ethics and Policy**, Teaching Assistant