Zihan Liu

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Education

- **Bachelor's Degree in Software Engineering, Sichuan University** — Chengdu, China
  GPA: 3.78/4 (Top 3%); — *September 2019 - June 2023*

Research Interests

- Human computer interaction; Social Computing; Computational Social Science; Natural language processing; Social and personality psychology; AI for Social Good;

Publications

- **Understanding Public Perceptions of AI Conversational Agents: A Cross-Cultural Analysis.**
  (Under Revision - Accept with minor revisions) 2024 CHI conference on human factors in computing systems (CHI'24).
  Authors: **Liu, Z.**, Li, H., Chen, A., Zhang, R., and Lee, Y.-C.
- **Privacy in Context: A Comparative Study of Discourse on Conversational AI Privacy on US and Chinese Social Media.**
  (Under Revision) The special issue "Comparative Approaches to Studying Privacy: Opening Up New Perspectives" in Social Media + Society.
  Authors: Zhang, R., Li, H., Chen, A., **Liu, Z.**, and Lee, Y.-C.
- **A Multi-Objective Genetic Optimization Algorithm for Charger Selection in Static Charger Deployment Scheme for WRSN**
  2022 IEEE 14th International Conference on Advanced Infocomm Technology (ICAIT)
  Authors: Liu, H., Zhong, L., **Liu, Z.**, and Lin, F.

Professional Experience

- **Research intern advised by Prof. Yi-Chieh (EJ) Lee** — *National University of Singapore*
  Research interests: Human-Computer Interaction, Social Computing — *Jan 2023 - Present*
  - **Project: A Cross-Cultural Analysis of Public Perceptions towards AI Conversational Agents.**
    As the first author, fully engaged in the entire research process, from conceptualization to final publication;
    This study used computational methods including word embedding and topic modeling to analyze about one million social media discussions surrounding CAs and compared people's discourse and perceptions of CAs in the US and China. Our insights reveal how culture shapes public views on CAs' warmth, competence, and emotional valence. We also characterize technical features influencing public perceptions and explore the interplay between culture and technical aspects. Recommendations are provided for designing contextually sensitive and user-centric CAs.
  - **Project: A Comparative Study of Conversational AI Privacy Discourse on US and Chinese Social Media.**
    Engaged in the literature review process, took an active role in data collection and analysis, and co-authored a specific section of the results;
    Adopting the Comparative Privacy Research framework, this study compares public and institutional discourses on conversational AI privacy on the U.S. and Chinese social media platforms, Twitter and Weibo. Employing semantic network analysis and discourse analysis, our study uncovers divergent public perceptions and attitudes towards conversational AI privacy, largely overlapping with institutional discourses on these platforms.
- **Research assistant advised by Prof. Yao Song** — *Sichuan University*
  Research interests: Digital Humanities — *March 2022 - June 2023*
  - **Project: Research on Chinese poetic image**
    Actively engaged in the entire process as leading member;
    The project investigates the composition and development of Chinese poetry imagery by applying pre-trained language models to existing data of ancient Chinese poetry and combining them with methods such as social network analysis.
  - **Project: Research on the hobbys of Generation Z**
    Actively engaged in the entire process as leading member;
    The project relies on insights derived from 30,000 hobby-related questionnaires. A crawler was crafted to retrieve Baidu search indices for specified hobbies, serving as a gauge of their popularity. Additionally, sentiment analysis was conducted on the descriptive text provided by interviewees. The visualization of the data was accomplished using Seaborn.
- **Research Intern advised by Prof. Feng Lin** — *Sichuan University*
  Research interests: NLP — *May 2021 - September 2021*
  - Read classic textbooks on machine learning; Learned NLP-related deep learning models such as Bert and LSTM; Built, trained and validated models under the PyTorch framework .
  - Wrote crawlers to fetch data; Process it with python and VBA.
- **IKE Environment Technology Co., Ltd. - Intern** — *Chengdu, China*
  Front-end Development — *January 2021 - February 2021*
  - Contributed to front-end development of web applications, acquiring self-taught proficiency in HTML, CSS, JavaScript, and Vue. Developed a foundational understanding of the application development lifecycle, encompassing requirement analysis, prototyping, and coding.

Other Training

- **Exchange, National University of Singapore** — Singapore
  Independent project scored A+ (highest grade); — *January 2023 - May 2023*
- **School of Computing Summer Workshop** — *National University of Singapore*
  Performance Rate: A — *May 2022 - July 2022*

Honors and Awards

- Comprehensive First-class Scholarship of Sichuan University (Top 3%) - October, 2022
- Outstanding Student of Sichuan University - October, 2022
- Comprehensive Third-class Scholarship of Sichuan University - October, 2021 and 2020
- National College Students' innovation and entrepreneurship training program (Graded as Excellent) - October, 2022
  (Core member of the team) Developed a web system that can generate game image materials using textureGAN and 3D reconstruction techniques based on Pixel-NeRF.
- Second Prize in The final of 11th "China Software Cup" Software Design Competition (Top 2%) - August, 2022
  (Core member of the team) Divided electricity consumers into clusters based on their payment records; Built electricity consumption models for each cluster to predict future consumer behavior.
- National Third Prize in 2022 WeChat Mini Program Application Development Contest (Top 5%) - August, 2022
  (Core member of the team) Developed a WeChat mini program using Vue, uni-app; Generated and rendered 3D models using Three.js, WebGL, BlazePose.
- Second Prize in the NUS School of Computing Summer Workshop - July, 2022
- Second Prize in the 12th Lan Qiao Cup National Software and IT Professionals Contest - May, 2021
  Algorithm design contest using C/C++.