Jiacheng Zhang

School of Information University of Michigan

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Research Interests

Human-AI Interaction; User Interface Automation; End-user Interaction with LLMs

Education

- 09/2023 Present University of Michigan, Ann Arbor Ann Arbor, MI PhD in Information Science Advisor: Steve Oney
- 08/2021 04/2023 University of Michigan, Ann Arbor Ann Arbor, MI BSE in Computer Science Engineering (Dual Degree)

09/2019 – 08/2023 Shanghai Jiao Tong University

Shanghai, China BSE in Electrical and Computer Engineering (Dual Degree)

Professional Experience

09/2023 – present Graduate Student Research Assistant

Ann Arbor, MI Advisor: Prof. Steve Oney

Developed WebMemo, a web automation tool using large language models and dynamic hierarchical structures to enhance efficiency in collecting, organizing, and retrieving web data into structured formats.

Explored user needs and preferences of using AI in web automation through interviews, uncovering insights on balancing privacy, efficiency, and usefulness to inform future tool design.

04/2022 – 08/2023 Research Assistant

Ann Arbor, MI Advisor: Prof. Andrew Owens

Established a dataset of real-world visual and touch data that enables diverse visuotactile learning and applied the dataset to a variety of machine learning tasks. Proposed a tactile-guided diffusion framework and used the visuo-tactile selfsupervision pretraining method as a prompt for touch-to-image generation.

05/2022 – 09/2022 Research Assistant, Summer Undergraduate Research in Engineering (SURE) Ann Arbor, MI Advisor: Prof. Xinyu Wang, Prof. Tianyi Zhang

Designed and developed a web automation system to intelligently scrape web content based on a small set of user demonstrations.

Publications - Conference Papers

- C.5 Zhang, J., Yang, C., Adar, E., Oney, S. (2024) WebMemo: A Mixed-Initiative System for Extracting and Structuring Web Content. (In Submission, CHI 2025)
- C.4 Zhang, J., Fan, C., Oney, S. (2024) Understanding Challenges and Needs of Using AI in Web Automation Systems. (In Submission, IUI 2025)
- C.3 Yang, F., Zhang, J., Owens, A. (2023) Generating Visual Scenes from Touch. In (PDF) Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)
 - C.2 Chen, W., Liu, X., Zhang, J., Lam, I. I., Huang, Z., Dong, R., Wang, X., Zhang,
- (PDF) T. (2023) MIWA: Mixed-Initiative Web Automation for Better User Control and Confidence. In Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST)
- C.1 Yang, F., Ma, C., Zhang, J., Zhu, J., Yuan, W., Owens, A. (2022) Touch and Go:
- (PDF) Learning from Human-Collected Vision and Touch. Advances in Neural Information Processing Systems (NeurIPS)

Peer Review

- 2024 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)
- 2022 Neural Information Processing Systems Datasets and Benchmarks Track (NeurIPS)

Mentoring

- 04/2024 09/2024 Carl Fan, Master Student UMich
- 05/2024 10/2024 Chen Yang, Undergraduate Student UMich

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