Zhuohao (Jerry) Zhang

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RESEARCH PROFILE

I design and study intelligent user interfaces that integrate AI, multimodal interaction, and user-centered design to enhance human capabilities in complex digital environments. My work spans intelligent interface design, large language model integration, and interaction techniques that adapt to diverse user needs. Methodologically, I combine participatory design, system building, and empirical evaluation to create deployable, data-driven solutions. While I have specialized expertise in accessibility—collaborating closely with blind and low-vision users to address extreme-use cases—my research insights and systems extend to broader populations, informing the design of adaptive, transparent, and customizable AI-powered tools for productivity, creativity, and decision-making.

EDUCATION

University of Washington, Seattle, WA

 $2021{\rm -present}$

Ph.D. in Information Science (expected)

Advisor: Jacob O. Wobbrock

${\bf University\ of\ Illinois\ at\ Urbana-Champaign,\ Urbana,\ IL}$

2019-2021

M.S. in Computer Science (with thesis and full scholarship)

Advisor: Yang Wang GPA: 4.0/4.0

Zhejiang University (ZJU), Hangzhou, China

2015-2019

B.Eng. in Computer Science (with Honors) GPA: 3.87/4.0 Ranking: Top 5% of 181

WORK EXPERIENCE

Apple Inc., Seattle

Summer 2025

Summer 2020

Machine Learning Intern

Mentors: Griffin Smith, Cole Gleason, Leah Findlater, Jeff Nichols

Apple Inc., Seattle Summer 2024

Machine Learning Intern

Mentors: Amanda Swearngin, Jeff Nichols

Microsoft Research, Redmond Summer 2023

Applied Scientist Intern (EPIC & Ability Team)

Mentors: Bongshin Lee, Ed Cutrell

Meta Reality Labs, Redmond & Toronto Summer 2022

Research Scientist Intern (Agios Team)

Mentor: Dan Clarke

Adobe Research, Remote

Research Scientist Intern (VaaS Team) Mentors: Sana Malik, Leo Zhicheng Liu

RESEARCH
EXPERIENCE

University of Washington, Seattle

2021-present

Graduate Research Assistant Supervisor: Jacob O. Wobbrock

University of Michigan, Ann Arbor

2020-2021

Graduate Research Assistant Supervisor: Anhong Guo

University of Illinois at Urbana-Champaign, Urbana, IL

2019-2021

Graduate Research Assistant Supervisor: Yang Wang

Cornell University (Cornell Tech), New York, NY

2018

Research Assistant Supervisor: Shiri Azenkot

HONORS AND AWARDS

Student Project Lead, CREATE-RERC Grant on AI for Accessibility Part of \$4.6M federal NIDILRR grant (2024–2029), 1 of 4 Proposed Solutions.

2024

Apple Scholars in AI/ML PhD Fellowship

2024

20 Recipients Per Year, Full tuition, stipend, travel fund for 2 Years; ~\$180,000 total.

Best Poster Honorable Mention, UIST

2022

Best Paper Honorable Mention, CHI

2022

ACM CHI Student Research Competition Winner

2019

2019

Chu Kochen Honors College Research Scholarship (top 5%)

Awarded \$15,000 total in support for conducting research abroad.

First-class Scholarship, 3 successive years (top 3% in ~850 students) 2016–2018

PEER-REVIEWED FULL PAPERS

Publications are primarily in **CHI**, **UIST**, and **ASSETS**— premier conferences in HCI and Accessibility. An asterisk (*) denotes equal contribution.

[13] Lotus Zhang, **Zhuohao (Jerry) Zhang**, Gina Clepper, Franklin Mingzhe Li, Patrick Carrington, Jacob O. Wobbrock, and Leah Findlater. 2025. VizXpress: Towards Expressive Visual Content by Blind Creators Through AI Support. *In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '25).*

[12] **Zhuohao (Jerry) Zhang**, Haichang Li, Chun Meng Yu, Faraz Faruqi, Junan Xie, Gene S-H Kim, Mingming Fan, Angus Forbes, Jacob O. Wobbrock, Anhong Guo, and Liang He. 2025. A11yShape: AI-Assisted 3-D Modeling for Blind and Low-Vision Programmers. In Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '25).

- [11] **Zhuohao (Jerry) Zhang**, Ruiqi Chen, Mingyuan Zhong, and Jacob O. Wobbrock. 2025. SlideAudit: A Dataset and Taxonomy for Automated Evaluation of Presentation Slides. In Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST '25).
- [10] Jiahao Nick Li, **Zhuohao (Jerry) Zhang**, and Jiaju Ma. 2025. OmniQuery: Contextually Augmenting Captured Multimodal Memories to Enable Personal Question Answering. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)*.
- [9] Zhuohao (Jerry) Zhang, Eldon Schoop, Jeffrey Nichols, Anuj Mahajan, and Amanda Swearngin. 2025. From Interaction to Impact: Towards Safer AI Agent Through Understanding and Evaluating Mobile UI Operation Impacts. In Proceedings of the 30th International Conference on Intelligent User Interfaces (IUI '25).
- [8] Zhuohao (Jerry) Zhang, John R Thompson, Aditi Shah, Manish Agrawal, Alper Sarikaya, Jacob O. Wobbrock, Edward Cutrell, and Bongshin Lee. 2024. ChartA11y: Designing Accessible Touch Experiences of Visualizations with Blind Smartphone Users. In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24).
- [7] **Zhuohao (Jerry) Zhang**, Gene S-H Kim, and Jacob O. Wobbrock. 2023. Developing and Deploying a Real-World Solution for Accessible Slide Reading and Authoring for Blind Users. *In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23)*.
- [6] Zhuohao (Jerry) Zhang, Smirity Kaushik, JooYoung Seo, Haolin Yuan, Sauvik Das, Leah Findlater, Danna Gurari, Abigale Stangl, and Yang Wang. 2023. ImageAlly: a human-AI hybrid approach to support blind people in detecting and redacting private image content. In Proceedings of the Nineteenth USENIX Conference on Usable Privacy and Security (SOUPS '23).
- [5] **Zhuohao (Jerry) Zhang** and Jacob O. Wobbrock. 2023. AllyBoard: Making Digital Artboards Accessible to Blind and Low-Vision Users. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*.
- [4] Cheuk Yin Phipson Lee*, **Zhuohao (Jerry) Zhang***, Jaylin Herskovitz, JooYoung Seo, and Anhong Guo. 2022. CollabAlly: Accessible Collaboration Awareness in Document Editing. *In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22)*. Best Paper Honorable Mention.
- [3] **Zhuohao (Jerry) Zhang**, Zhilin Zhang, Haolin Yuan, Natã Barbosa, Sauvik Das, and Yang Wang. 2021. WebAlly: Making visual task-based CAPTCHAs transferable for people with visual impairments. *In Proceedings of the Seventeenth USENIX Conference on Usable Privacy and Security (SOUPS '21)*.
- [2] Natã M. Barbosa, **Zhuohao (Jerry) Zhang**, and Yang Wang. 2020. Do privacy and security matter to everyone? quantifying and clustering user-centric considerations about smart home device adoption. *In Proceedings of the Sixteenth USENIX Conference on Usable Privacy and Security (SOUPS '20)*.
- [1] Lei Shi, Holly Lawson, **Zhuohao (Jerry) Zhang**, and Shiri Azenkot. 2019. Designing Interactive 3D Printed Models with Teachers of the Visually Impaired. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*

PEER-**REVIEWED**

[7] Jiahao Nick Li, **Zhuohao (Jerry) Zhang**, and Jiaju Ma. 2024. OmniQuery: Enabling Question Answering on Personal Memory by Augmenting Multimodal Album SHORT PAPERS Data. In Adjunct Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '24).

- [6] Zhuohao (Jerry) Zhang and Jacob O. Wobbrock. 2022. AllyBoard: Using Multimodal Input and Output to Make Digital Artboards Accessible to Blind Users. In Adjunct Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology (UIST '22 Adjunct).
- [5] Zhuohao (Jerry) Zhang, Sana Malik, Shunan Guo, Jane Hoffswell, Ryan Rossi, Fan Du, and Eunyee Koh. 2022. CODAS: Integrating Business Analytics and Report Authoring. In Euro Vis Workshop on Visual Analytics (Euro VA '22).
- [4] Zhuohao (Jerry) Zhang, Sana Malik, Shunan Guo, Jane Hoffswell, Ryan Rossi, Fan Du, and Eunyee Koh. 2022. Understanding Business Analysts' Needs for Data Report Authoring. In Euro Vis Workshop on Visual Analytics (Euro VA '22).
- [3] Cheuk Yin Phipson Lee*, Zhuohao (Jerry) Zhang*, Jaylin Herskovitz, JooYoung Seo, and Anhong Guo. 2021. CollabAlly: Accessible Collaboration Awareness in Document Editing. In Proceedings of the 23rd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '21).
- [2] Xiyuan He* and Zhuohao (Jerry) Zhang*. 2019. GPK: An Efficient Special Symbol Input Method for Keyboards. In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI EA '19).
- [1] Lei Shi, Zhuohao (Jerry) Zhang, and Shiri Azenkot. 2018. A Demo of Talkit++: Interacting with 3D Printed Models Using an iOS Device. In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '18).

ACADEMIC SERVICES

Associate Chair

CHI 2026, Subcommittee Computational Interaction

Program Committee

IUI 2025, 2026

Conference Reviewer

CHI, since 2022 (Special recognitions for outstanding reviews: 2024, 2025) UIST, since 2023 (Special recognition for outstanding reviews: 2023) IUI, since 2025

VIS 2023

CSCW 2021 (Special recognition for outstanding reviews)

University Service

DUB (Design, Use, Build) Seminar Host, University of Washington, 2022–2024 CREATE Advisory Board Meeting Student Volunteer, 2022

TEACHING University of Washington, Information School

INFO 380: Product and Information Systems Management (TA)	Spr 2024
INFO 300: Research Methods (TA)	Aut 2023
INSC 571: Quantitative Methods in Information Science (TA)	Win 2023
INFO 180: Introduction to Data Science (TA)	Aut 2022
INFO 490/491: Project Capstone I/II (TA)	$Win/Spr\ 2022$
INFO 201: Foundational Skills for Data Science (TA)	Aut 2021

MEDIA COVERAGE

University of Michigan News

10/2025

"New AI tool opens 3-D modeling to blind and low-vision programmers."

 ${\bf Apple Insider} \hspace{3cm} 06/2025$

"Apple researchers work to stop AI from taking actions you didn't approve."

Sohu / IT Home (Chinese)

06/2025

"Apple AI new study: enabling it to understand the consequences of mobile-phone operations to avoid high-risk behaviors."

Disabled World 03/2024

"A11yBoard Google Slides Extension Makes Presentation Software More Accessible for the Blind."

UW News (Front Page)

10/2023

"A Google Slides extension can make presentation software more accessible for blind users."

Microsoft New Future of Work Report 2022

05/2022

"Collaboration systems need to be more accessible."

University of Michigan CSE News

05/2022

"Making collaborative online document editing accessible to blind users."

XRDS: Crossroads, The ACM Magazine for Students

01/2022

"Accessibility, justice, and privacy for technology."

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