Zhuohao Zhang

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Research Interest

HCI (Accessibility, Social Computing, Usable Privacy and Security, CSCW), AI (Human-AI Interaction)

Education

2019-2021 **University of Illinois at Urbana-Champaign (UIUC)**, Urbana, IL
M.S. in Computer Science (with thesis), GPA: 4.0/4.0
Advisor: Yang Wang

2015-2019 **Zhejiang University (ZJU)**, Hangzhou, China
B.Eng. in Computer Science (with Honors), GPA: 3.87/4.0, Ranking: Top 5% of 181
Advisor: Yingcai Wu

Selected Coursework: Data Structure & Algorithms, Probability and Mathematical Statistics, Computational Methods, Optimization Algorithms, B/S Architecture Software Design, Artificial Intelligence, Database Systems, Machine Learning, HCI for ML, Applied ML, ML in Natural Language Processing, Anti-social Computing

Academic Publications

CONFERENCE PAPERS

[C.5]   **Zhuohao Zhang**, Zhilin Zhang, Haolin Yuan, Natã Barbosa, Sauvik Das, Yang Wang. *WebAlly: A Friendsourcing Approach to Solve CAPTCHAs for People with Visual Impairments.* In submission to the 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021)

[C.4]   **Zhuohao Zhang**, Sana Malik, Leo Zhicheng Liu, Tak Yeon Lee, Fan Du, Ryan Rossi, Eunyee Koh. *Authoring Interactive Data-Driven Reports for Business Data Analysts.* In submission to the ACM CHI Conference on Human Factors in Computing Systems (CHI 2021)

[C.3]   Natã Barbosa, **Zhuohao Zhang**, Yang Wang. *Do Privacy and Security Matter to Everyone? Quantifying and Clustering User-Centric Considerations About Smart Home*

Device Adoption. In Proceedings of the Sixteenth Symposium on Usable Privacy and Security (SOUPS 2020)

[C.2] **Zhuohao Zhang***, Xiyuan He*[1]. *GPK: An Efficient Special Symbol Input Method for Keyboards Using Glide.* In Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2019 EA)

[C.1] Lei Shi, Holly Lawson, **Zhuohao Zhang**, Shiri Azenkot. *Designing interactive 3D printed models with Teachers of the Visually Impaired.* In Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2019)

DEMOS

[D.1] Lei Shi, **Zhuohao Zhang**, Shiri Azenkot. *A Demo of Talkit++: Interacting with 3D Printed Models Using iOS Devices.* In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2018)

WORKING PAPERS

[W.4] **Zhuohao Zhang**. *Making Challenging Online Tasks Accessible for People with Visual Impairments.* University of Illinois at Urbana-Champaign (Thesis'21)

[W.3] **Zhuohao Zhang**, Haolin Yuan, Natã Barbosa, Sauvik Das, Yang Wang. *WebAlly++: A Human-AI Hybrid Tool for Social Media Image Privacy and Security Screening for Visually Impaired People*

[W.2] Cheuk Yin Phipson Lee, **Zhuohao Zhang**, Jaylin Herskovitz, Anhong Guo. *Making Online Collaborative Editing Accessible for People with Visual Impairments Using Augmented Reality*

[W.1] Natã Barbosa, **Zhuohao Zhang**, Sauvik Das, Yang Wang. *GuardLens: Give Visually Impaired People Easy Access to Security and Privacy-related Information Online*

Research Experiences

2020.10-now **University of Michigan at Ann Arbor**, Remote
Graduate Research Assistant
    Human-AI Lab, Supervisor: Anhong Guo
- Research on making collaborative editing more accessible for people with visual impairments
- Utilizing augmented reality and spatial audio to enhance their perception and accessibility [W.2]

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[1]Contributed Equally as First Authors

2020.05-08   **Adobe Research**, Remote due to COVID-19
Summer Research Intern
       VaaS group, Mentor: Dr. Sana Malik, Prof. Zhicheng Liu
- Design an authoring tool to support data-driven report creation for business analysts with no technical background
- Submitted to CHI 2021 [C.4]

2019.10-now   **University of Illinois at Urbana-Champaign**, Urbana, IL
Graduate Research Assistant
       Social Computing Systems Lab, Supervisor: Yang Wang
- Research on using friendsourcing method to help people with visual impairments solve inaccessible web tasks and maintain their privacy and security at the same time. Collaborating with Prof. Sauvik Das, Gatech
- Submitted a full paper to CSCW 2021 [C.5] and other related publications [C.3, W.1, W.3, W.4]

2017.10-2018.12   **Cornell University (Cornell Tech)**, New York, NY
Research Assistant
       Enhancing Abilities Lab, Supervisor: Shiri Azenkot
- Designed an iOS application "Talkit++" to augment fabricated 3D models for blind people; Deployed in real use at several special education schools; Project released at: https://www.interactiveprintedmodels.com
- Results have been published at ASSETS 2018 [D.1] and CHI 2019 [C.1]

2018.07-2018.09   **University of California, Davis (UCD)**, Davis, CA
Summer Visiting Intern, **Viz & Interface Design & Innovation (VIDI) Lab**
Supervisor: Kwan-Liu Ma

2018.12   **Hong Kong University**, Remote
Joint Collaborator with Other Undergraduates [C.2]
Principal Investigator: Francis Chi Moon Lau

2017-2019   **Zhejiang University**, Hangzhou, China
Undergraduate Research Assistant, **Interactive Data Group**
Supervisor: Yingcai Wu

Working and Teaching Experiences

2019.08-2019.12   **Opico.io**, Urbana, IL
App Developer
- A social media app that allow users create and share reactions in different locations using Emojis. It has more than 1000 active users as of early 2020
- Implemented both front-end and back-end features, responsible for 3200 lines of React Native codes

2019-2020   **University of Illinois at Urbana-Champaign**, Urbana, IL
Teaching Assistant for course CS107 Data Science Discovery, CS125 An Introduction to Computer Science, and CS498 The Art of Web Programming

Honors and Awards

2019   ACM CHI Student Research Competition, Second Prize
2019   Chu Kochen Honors College Research Scholarship (top 5%)
Awarded $15000 in total in support for conducting research abroad
2016-2018   First-class Scholarship for 3 successive years (top 3% in ~850 students)
2016   Zhejiang Provincial Scholarship
Awarded for Excellent Students in Academics

Presentations and Talks

2020.08   **Adobe Research HCI Seminar**, Virtual
Codas: Data Story Authoring Tool for Business Analysts

2019.05   **CHI 2019**, Glasgow, UK
GPK: An Efficient Special Symbol Input Method for Keyboards Using Glide

2018.10   **Tactile Graphics in Education and Career Symposium**, Baltimore, MD
Sensables: 3D Printed Models for Visually Impaired Students (with Ph.D. Lei Shi)

Services

Academic Reviewing
CHI 2021, CHI 2019 Late Breaking Work, CHI 2019

Skills

Web development (JavaScript, SQL, React, D3.js, etc.), mobile developing (iOS & Android, React Native), XR Toolkits (HoloLens, Oculus Rift, ARKit), ...
Machine Learning Models and Implementation, Information Retrieval, Computer Vision, Optimization, ...