

Chao Zhang

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RESEARCH INTERESTS

Human-Computer Interaction (HCI), Human-AI Interaction, Child-AI Interaction, Creativity Support, Educational Technology, Storytelling, Sensemaking

EDUCATION

- Cornell University**, Ithaca, New York, United States 09/2023 - 06/2028 (*expc.*)
Ph.D. in Information Science, advised by Prof. Jeff Rzeszutarski
- Zhejiang University**, Hangzhou, China 09/2020 - 03/2023
M.E. in Design Engineering, GPA 3.93/4.00, advised by Prof. Cheng Yao
- National Scholarship [Top 0.1%]**, Ministry of Education, China.
- Jiangnan University**, Wuxi, China 09/2016 - 06/2020
B.E. in Electrical Engineering, minor in Digital Media Technology, GPA 3.83/4.00
- National Scholarship [Top 0.1%]**, Ministry of Education, China.

SELECTED PUBLICATIONS

For a complete list of publications, please refer to my [Google Scholar](#) profile.

Major Peer-reviewed Conference and Journal Papers

* denotes equal contribution.

- C.6. **Chao Zhang**, Xuechen Liu, Katherine Ziska, Soobin Jeon, Chi-Lin Yu, and Ying Xu. 2024. Mathemyths: Leveraging Large Language Models to Teach Mathematical Language through Child-AI Co-Creative Storytelling. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*.
- C.5. Yuwen Lu*, **Chao Zhang***, Yaxing Yao, and Toby Jia-Jun Li. 2024. From Awareness to Action: Exploring End-User Empowerment Interventions for Dark Patterns in UX. In *Proceedings of the ACM on Human-Computer Interaction (CSCW '24)*.
- C.4. **Chao Zhang**, Zili Zhou, Yajing Hu, Lanjing Liu, Jiayi Wu, Yaping Shao, Jianhui Liu, Lingyan Zhang, Lijuan Liu, Hangyue Cheng, Fangtian Ying, and Cheng Yao. 2023. Observe It, Draw It: Scaffolding Children's Observations of Plant Biodiversity with an Interactive Drawing Tool. In *Proceedings of the ACM Interaction Design and Children Conference (IDC '23)*.
- C.3. Qingyu Guo, **Chao Zhang**, Hanfang Lyu, Zhenhui Peng, and Xiaojuan Ma. 2023. What Makes Creators Engage with Online Critiques? Understanding the Role of Artifacts' Creation Stage, Characteristics of Community Comments, and their Interactions. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*.

- C.2. Wenjie Xu, Jiayi Ma, Jiayu Yao, Weijia Lin, **Chao Zhang**, Xuanhe Xia, Nan Zhuang, Shitong Weng, Xioqian Xie, Shuyue Feng, Fangtian Ying, Preben Hansen, and Cheng Yao. 2023. MathKingdom: Teaching Children Mathematical Language through Speaking At Home via a Voice-guided Game. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*.
- C.1. **Chao Zhang**^{*}, Cheng Yao^{*}, Jiayi Wu, Weijia Lin, Lijuan Liu, Ge Yan, and Fangtian Ying. 2022. StoryDrawer: A Child-AI Collaborative Drawing System to Support Children's Creative Visual Storytelling. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22)*.

Minor Lightly-Reviewed Posters, Extended Abstracts, and Workshop Papers

- P.2. **Chao Zhang**, Zili Zhou, Jiayi Wu, Yajing Hu, Yaping Shao, Jianhui Liu, Yuqi Hu, Fangtian Ying, and Cheng Yao. 2021. Bio Sketchbook: An AI-assisted Sketching Partner for Children's Biodiversity Observational Learning. In *Extended Abstracts of the ACM Interaction Design and Children Conference (IDC EA '21)*.
- P.1. **Chao Zhang**, Cheng Yao, Jianhui Liu, Zili Zhou, Weilin Zhang, Lijuan Liu, Fangtian Ying, Yijun Zhao, and Guanyun Wang. 2021. StoryDrawer: A Co-Creative Agent Supporting Children's Storytelling through Collaborative Drawing. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems (CHI EA '21)*.

SELECTED DESIGN AWARDS & EXHIBITIONS

Design Awards

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| A.9. James Dyson Award National Runner-up , Dyson Limited, United States. [Link] | 2023 |
| A.8. Red Dot Award: Design Concept , Red Dot Award, Germany. | 2023 |
| A.7. A' Design Iron Award , A' Design Award, Italy. [Link] | 2022 |
| A.6. iF Talent Award , iF Design Award, Germany. [Link] | 2021 |
| A.5. DIA Honorable Mention , Design Intelligence Award (DIA), China. [Link] | 2021 |
| A.4. C4-AI Outstanding Winner (Top 1) , C4-AI Innovation Contest, China. | 2021 |
| A.3. Outstanding Winner (Top 10) , China Graduate AI Innovation Competition, China. | 2021 |
| A.2. UXDA Finalist (Top 20) , User Experience Design Award (UXDA), China. | 2021 |
| A.1. IDC Nominations Award , International Designer Club (IDC) Award, Malaysia. | 2021 |

Design Exhibitions

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| E.3. China Design Exhibition , China. | 2022 |
| E.2. Global Grad Show , Dubai Design Week, The United Arab Emirates. [Link.1] [Link.2] | 2021 |
| E.1. "Ecological Bridge" Innovative Design Exhibition , China. | 2021 |

PATENTS & SOFTWARE COPYRIGHTS

- PT.3. A Drawing System to Support Children's Observation of Plants and Learning about Biodiversity. 2021. *China National Invention Patent*. Application No. 202110645869.1
- PT.2. A Sketch Recognition and Generation Method based on Raspberry Pi and Recurrent Neural Network. 2020. *China National Invention Patent*. Application No. 202011322789.4

- PT.1. A Sentiment Analysis and Visualization Method Combining Video and Pop-Ups. 2019. *China National Invention Patent*. Application No. 201910287517.6
- SC.1. Enterprise Network Opinion Analysis and Visualization Software. 2019. *China Software Copyright*. Registration No. 2019SR0428088

SELECTED HONORS & SCHOLARSHIPS

- H.5. **Special Recognition for Paper Reviews**, CHI 2024. 2024
- H.4. **Special Recognition for Paper Reviews**, CSCW 2023. 2023
- H.3. **National Scholarship** (Top 0.1%), Ministry of Education, China. 2022, 2021, 2018
- H.2. **Valedictorian**, School of IOT, Jiangnan University, China. 2020
- H.1. **Jiangnan Talent** (Only 10 awardees in Jiangnan University), Jiangnan University, China. 2019

RESEARCH EXPERIENCE

- Visiting Researcher**, Converse to Learn Lab, University of Michigan, USA 01/2023 - 09/2023
Advised by Prof. Ying Xu
- Visiting Researcher**, SaNDwich Lab, University of Notre Dame, USA 06/2022 - 01/2023
Advised by Prof. Toby Jia-jun Li and Prof. Yaxing Yao (Virginia Tech)
- Research Intern**, HCI Lab, Hong Kong University of Science and Technology, China 06/2022 - 09/2022
Advised by Prof. Xiaojuan Ma
- Research Intern**, HCI Lab, OPPO Research Institute, China 01/2022 - 04/2022
Mentored by Dr. Yilei Shi and Dr. Haimo Zhang
- Research Associate**, INNO Lab, Zhejiang University, China 06/2020 - 03/2023
Advised by Prof. Cheng Yao and Prof. Fangtian Ying

TEACHING EXPERIENCE

- INFO 4430 Teams and Technology**, Teaching Assistant, Cornell Fall 2023
- CST 5141081 Interaction Technology and Design Practice**, Teaching Assistant, ZJU Spring 2021
- CST 5143104 Design Engineering**, Teaching Assistant, ZJU Fall 2020
- CST 2521018 Frontier of Engineering Technology**, Teaching Assistant, ZJU Fall 2020

ORAL PRESENTATIONS

- Presenting Author**, IDC 2023, Virtual Event 06/2023
- Invited Talk**, Design Innovation Center, China Academy of Art 04/2022
- Invited Talk**, Industrial Design Institution, Chinese Mechanical Engineering Society 04/2022
- Presenting Author**, CHI 2022, Virtual Event 03/2022
- Presenting Author**, IDC 2021, Virtual Event 06/2021
- Presenting Author**, CHI 2021, Virtual Event 03/2021

ACADEMIC SERVICES

Program Committee: CHI 2024 (LBW AC), CHI 2023 (LBW AC)

Paper Reviewing: IJHCI 2024, CHI 2024, CSCW 2023, IDC 2023, CHI 2023, IDC 2022, CHI 2022, ChinaVis 2022, Chinese CHI 2022, Chinese CHI 2021

SKILLS

Research: Interview, Survey, Participatory Design, Experimental Design, Thematic Analysis, LaTeX

Design: User Experience Design (Figma, Sketch), 3D Modelling and Rendering (Cinema 4D, Corona Render, Rhino 3D), Generative Design (P5, Processing, Grasshopper), Graphic Design (Adobe Products)

Computing: Front-End Development (Javascript, HTML, CSS, Vue.js, React.js), Statistics Analysis (Matplotlib, Numpy, Pandas, SPSS, JASP), and Machine Learning (Sklearn, PyTorch, Tensorflow)

Prototyping: 3D Printing, Laser Cutting, Fabrication and Hardware Assembly, Basic Circuit Design