

# ZHIJIE YI

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## About

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I possess skills in both design and programming, specializing in developing tools that enrich the creative process and foster public engagement in creative endeavors. My expertise extends to qualitative research methods, with a keen interest in exploring user experiences within human-machine collaborations. Driven by a passion for supporting underserved communities, I am dedicated to designing and developing tools tailored to address their unique challenges. My focus lies in seamlessly integrating design and programming knowledge to craft accessible and user-friendly tools.

## Fields of Interest

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- Creativity support tools, Improve people's creativity and productivity
- Education, Equity, Welfare and Justice
- The gap between human thinking and computer workflow in CSCW and HCI
- User experience and accessibility, User study
- Participatory design, Human-centered design, Accessible design

## Education

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### Beijing Normal University

*Master of design*

09/2022 – 06/2025

*Beijing, China*

### Hengyang Normal University

*Bachelor of arts*

09/2015 – 06/2019

*Hengyang, China*

## Publications

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### Conference

[1] **Zhijie Yi**, Yueteng Yu, Xiang Chang, Xinyu Yang, Mengdi Chu, Junrong Lu, Yiyao Liu, Jingli Qin, Ye Jin, Jialin Song, Guyue Zhou, Jiangtao Gong\*. From Driver to Passenger: Understanding Evaluation Gaps in "Fantastic" Driving Behaviour Delivery. (CSCW'2024 Under review)

[2] Ye Jin, Ruoxuan Yang, **Zhijie Yi**, Xiaoxi SHEN, Peng Huiling, Xiaoran Liu, Jingli Qin, Li Jiayang, Peizhong Gao, Guyue Zhou, Jiangtao Gong\*. SurrealDriver: Designing LLM-powered Generative Driver Agent Framework based on Human Drivers' Driving-thinking Data. (IROS'2024 Under review)

[3] Hongfei Wu, RChiju Chao, **Zhijie Yi**, Zhiyong Fu\*. Improving Knowledge Asymmetry in Group Discussions with Smart Assistants. (HCII'2024 Accept)

### Journal

[1] Chiju Chao, Yu Chen, Hongfei Wu, Wenxuan Wu, **Zhijie Yi**, Liang Xu, Zhiyong Fu\*. An Emotional Design Model for Future Smart Product Based on Grounded Theory. *Systems*. 2023; 11(7):377. <https://doi.org/10.3390/systems11070377>

## Research Experience

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### Autonomous driving human-computer interaction modeling and design innovation

06/2023 – 01/2024

*Tsinghua University, Institute for AI Industry Research*

*Supervisor: Prof. Jiangtao Gong*

- Background: This study focuses on exploring the gap between driver and passenger perception and driving behavior evaluation from multiple stakeholder perspectives, and provides suggestions and strategies for the design of driving systems in autonomous driving scenarios.
- Main work: Used thematic analysis to code over 90 hours of interview data, Screened more than 217 documents and wrote a review framework, Constructing thesis framework, Deriving interaction models, Write and revised the main content of the paper, Draw all figures for the paper, Video production, The corpus of various driving conditions of 24 drivers was summarized, and the data was cleaned to compile a human driving data set on urban roads.
- Result: A full paper of 12,000 words and submitted to CSCW2024.

### Design Futures - Futurescaping generator Research

05/2023 – 11/2023

*Tsinghua University Academy of Fine Arts*

*Supervisor: Prof. Zhiyong Fu*

- Background: As an innovative anticipatory action, the focus of design is turning to a future-oriented perspective. In this direction, it is necessary to analyze culture, images, models and design paradigms to explore how AIGC technology can help people better Design for the future.
- Main work: Use actor network diagrams to visualize more than 40 speculative design cases, Build an AIGC generative design interaction framework, Use chatGPT, midjourney and other tools to simulate the generator prototype, Adjust prompt word parameters and usability testing.
- Result: A prototype generation tool that can be used to analyze existing design cases and then deduce its future design development trends and provide future design solutions (based on actor-network diagram and chatGPT).

## Research on human-machine empathic interaction of intelligent products

10/2022 – 02/2023

*Tsinghua University Academy of Fine Arts*

*Supervisor: Prof.Zhiyong Fu*

- Background: This study explores whether intelligent assistants can improve the efficiency of group discussions and obtains design suggestions to create more efficient and practical tools for collaborative tasks.
- Main work: Use grounded theory to code user perception corpus of more than 70 smart products, Searched the literature and sorted out more than 20 product emotional models, Use the Wizard of Oz method to organize Organized 4 group experiments workshop. Design scales and questionnaires. Organize validation focus groups.
- Reward: Participate in a paper together and start to become interested in scientific research.

## Project Experience

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### Child-friendly community public space Design

08/2023 – 11/2023

*Beijing Normal University*

*School Of Future Design*

- Project Location: Ningtang Village, Xiangzhou District, Zhuhai City, Guangdong Province, China
- Organize workshops to encourage children to participate in the evaluation of design plans through drawings.
- Conduct interviews with children, community managers, and community residents to conduct user research.

### Research on interaction of public spaces in old communities

03/2023 – 06/2023

*Beijing Normal University*

*School Of Future Design*

- Project Location: Education Community, Shishan Street, Xiangzhou District, Zhuhai City, Guangdong Province, China
- Participant observation methods were used to observe five spaces in a cross area with a length of 144 meters and a width of 52 meters over 20 hours.
- Conduct in-depth interviews with residents in each space and collect corpus for analysis.
- Observe and record environmental data in space, and use the Spearman coefficient for correlation analysis.

### Data-based creation of age-friendly communities

07/2022 – 09/2022

*Shanghai Jiao Tong University*

*School of Architecture and Design*

- Project location: Zhuqiao Village, Songjiang District, Shanghai, China
- Development of a questionnaire targeting Alzheimer's disease patient group stakeholders. Conduct in-depth interviews with more than 6 types of stakeholders, and code the interview data to derive a motivation matrix.
- Use methods such as user journey maps and affinity diagrams to derive service system diagrams and service blueprints.

## Industry Experience

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### Applify AI WritingPal

06/2023 – 09/2023

*Intern UX Designer*

*Boston, MA(remote work)*

- Main work: Product interaction design. User interface design. User usability testing

### OPPO

05/2019 – 01/2020

*UX Designer*

*Guangzhou China*

- Main work: User study. Product interaction design. UI interface design. User usability testing.

## Skills

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**Quantitative research:** Experimental Design, Questionnaires and Surveys Development

**Qualitative research:** Usability Test, User Interview, Grounded theory, Wizard of Oz Method, Cultural probe

**Languages:** Java, JavaScript, Mandarin(native), English

**Technical Tools:** Processing, p5js, GitHub, LaTeX, Figma, Adobe tools

## Service

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Reviewer of ACM SIGCHI Conference on Human Factors in Computing Systems (CHI2024)

10/2023

## Honors & Awards

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The 2nd Academic Scholarship For Postgraduate

12/2023

The 3rd Prize, China Creative Challenge Contest

11/2023

The 3rd Prize, Global Service JAM 2023

03/2023

## References

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Jiangtao Gong | *Tsinghua University*

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Tiange Zhou | *Beijing Normal University*

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