

WANG ZHAODONG

Interdisciplinary Researcher
Master's Candidate in Design

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Interdisciplinary researcher with a background in physics and design, studying how embodied experience makes social relations meaningful and reconstructing them as designable structures through technological mediation.

RESEARCH INTERESTS

Design Epistemology and Methodology;
Cognitive Semantics and Meaning-Making;
Embodied Cognition;
Human-Technology Relations

RESEARCH CAPABILITIES

Conceptual Analysis • Framework Development
Embodied Experience Analysis
Metaphor/Schema Analysis • XR Prototyping
Driving Simulation • Eye Tracking • EEG/fNIRS Analysis

PUBLICATIONS & MANUSCRIPTS

Z. Wang, & F. You (2026). Reconstructing subtle embodied social experience as designable relations: An image-schema-mediated empirical-to-design method demonstrated through a public-space gaze case.
First Author • Submitted to *International Journal of Human-Computer Interaction*
(Preprint available on SSRN. doi:10.2139/ssrn.7201181)

F. You, X. Yan, **Z. Wang**, & Q. Fu (2026). Seeing the whole process: How cooperative process transparency in AR-HMI affects driver cognition in V2V lane changes.
Corresponding Author • Revision under review at *Transportation Research Part F: Traffic Psychology and Behaviour*

Y. Chen, F. Jia, **Z. Wang**, X. Wu, & J. Wang (2026). Designing multimodal takeover request interfaces: The impact of warning modalities and information types on drivers' takeover performance and subjective perceptions.
Under review at *International Journal of Human-Computer Interaction*

Y. Chen, Y. Jin, F. Jia, J. Wang, **Z. Wang**, B. Mehler, & F. You (2026). Beyond attention reminders: Effects of monitoring request design type and non-driving-related task engagement on driver takeover performance and subjective perceptions.
Under review at *Accident Analysis & Prevention*

Y. Chen, J. Wang, F. Jia, X. Wu, Q. Xiao, **Z. Wang**, & F. You (2025). Is control necessary for drivers? Exploring the influence of human-machine collaboration modes on driving behavior and subjective perception under different hazard visibility scenarios.
Published in *Accident Analysis & Prevention*, 217, 108067. doi:10.1016/j.aap.2025.108067

EDUCATION

9/2024 - 6/2027 **Master's Candidate in Design** **User Experience Lab, College of Arts and Media, Tongji University**
Working thesis title: *Mixed-Reality Interaction Design for Public-Space Social Experience*
GPA: 4.76/5.0 • Supervisor: Prof. Fang You

9/2020 - 6/2024 **Bachelor's Degree in Physics** **College of Physics, Jilin University**
Intellectual formation in mathematical abstraction, idealization, and model-based reasoning

SELECTED RESEARCH PROJECTS

2025 - Present **XR-Mediated Design for Subtle Embodied Social Experience** **Master's Researcher, Tongji University**
Investigates how subtle embodied experiences of public-space social interaction can be reconstructed as design-operable relations and instantiated through XR design propositions.
• Conceived the theoretical and methodological framework and designed and conducted a first-person study with 16 participants.
• Developed the Evidence-Side and Design-Side Image-Schematic Systems and generated XR symbolic-metaphor propositions.
• Led data analysis, visualization, and manuscript preparation; currently developing the Unity-based XR prototype and preparing its empirical evaluation.

2025 - Present **Cooperative Process Transparency in AR-HMI** **Co-Researcher, Tongji University**
Examines how different levels of cooperative process transparency affect driver cognition during V2V cooperative lane changes.
• Contributed to the conceptualization and three-level operationalization of cooperative process transparency; curated and formally analysed performance and subjective data.
• Produced research visualizations and led manuscript preparation and revision.

2024 - 2025	AR Social-Space Design through Interpersonal Distance and Social Cues Co-Researcher, Tongji University Examines how virtual-agent layout, gesture amplitude, and interaction guidance shape affect, social presence, and continued engagement in AR. - Contributed to research conceptualization and curated and formally analysed the experimental data. - Drafted the original manuscript and contributed to its review and revision.
2024 - Present	Automated-Driving HMI and Driver Attention Co-Researcher, Tongji University Comprises three driving-simulator studies of collaboration modes, monitoring requests, and multimodal takeover warnings. - Contributed to the experimental design and execution of one controlled driving-simulator study. - Processed and analysed eye-tracking and fNIRS data across the project studies. - Contributed to the interpretation of results and manuscript review and revision.

EXTERNAL RESEARCH COLLABORATIONS

2025	Eye-Tracking Experiment and Analysis Coordinator Tongji University & Huawei Technologies Co., Ltd. Provided methodological training and supervised eye-tracking experiments and data analysis for an industry collaboration on task complexity in cloud change operations.
2025-2026	EEG Data Analysis Coordinator Beijing Institute of Petrochemical Technology Supervised and conducted EEG data analysis for the project "Cognitive and Neural Mechanisms Underlying the Detection and Dissemination of AI-Generated Misinformation."

TECHNICAL SKILLS

Research · Analysis	SPSS · MATLAB · GraphPad Prism · NVivo · Tobii Pro Lab
Programming · XR	Unity · Python · C/C++ · HTML
Design · Media	Figma · Adobe Photoshop · Adobe Premiere Pro · Blender · SketchUp
Authoring	LaTeX

LANGUAGES

Chinese - Native, **English** - Academic working proficiency, **Japanese** - Intermediate, **French** - Elementary