



Yue Mao

MAO Yue is a design researcher and data analyst with a Master of Design from Macau University of Science and Technology and a Bachelor of Drama and Film Studies from ShanDong College of Art. Her work connects interior design, visual communication, data-driven design decision-making, user behavior, and cultural-design research.

Her recent research applies Rough Set Theory, DEMATEL, PLS-SEM, machine learning, regression, clustering, and computer-vision methods to investigate built-environment perception, public health communication, high-end nursing home information attributes, sports identity, Cantonese Opera education, and traditional cultural heritage design.

Research interests: Multi-Attribute Decision Making; Machine Learning; Design Decision Analytics; User Behavior and Experience; Interdisciplinary Design Research; Design and Environmental Sustainability; Decision-making Optimization; Design and Urban Social Culture.

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Academic qualification

Master of Design 設計學碩士, Macau University of Science and Technology
澳門科技大學

Macau, China · 2022.09-2024.07 · Major: Interior Design 室內設計

Bachelor of Drama and Film Studies 戲劇與影視學學士, ShanDong College of Art
山東藝術學院

Jinan, Shandong Province, China · 2018.09-2022.07 · Major: Animation-Digital Drawing
動畫-數字繪畫

Present academic / professional positions

Data Analyst 數據分析師, CCIG 集智 (珠海) 國際文化發展有限公司

Zhuhai, China · 2024.06-present · Responsible for web crawling, experimental-data collection and organization, data preprocessing, and machine-learning-based analysis.

Intern Designer 實習設計師, 山東實創整裝裝飾集團有限公司

Jinan, China · 2023.06-2023.09 · Assisted designers with scheme development, construction drawings, and material selection.

Awards and practice

- 抗击“新冠肺炎”公益宣传设计全球征集活动 · 作品入选 · 2019.06

- 山东省大学生国际动漫游戏大赛 · 三等奖 · 2020.10

- 2025澳門文創設計大賽 · 一等奖 · 2025.11

Research

- Design decision-making and cultural heritage research: explores how traditional intangible cultural heritage furniture can be sustainably integrated into contemporary home-living settings through interviews, image and sales data, machine learning, embodied user-experience experiments, and multi-objective design optimization.
- Public health advertising and community resilience: examines visual information communication mechanisms in outdoor public health advertising and evaluates effects on health literacy, community belonging, and visual communication design improvement.
- Cantonese Opera development and attention assessment: constructs a framework for factors influencing Cantonese Opera development and uses classroom video, computer vision, and machine learning to evaluate student attention in traditional culture education.

Publication

Applying Rough Set Theory (RST) to Explore the Effects of Graffiti and Surroundings on Human Perceptions of Safety

Published · Cities · SSCI Q1 · 2025.09

Building Community Resilience through Visual Communication: A Theoretical Framework for the Impact of Outdoor Public Health Advertising on Health Perceptions and Behaviors

Under review · Patient Education and Counseling · SSCI Q1 · 2025.10 · First author

Influence Mechanisms of High-End Nursing Home Information Attributes on Consumer Click-Through in Online Channels: An Integrated RSA-DEMATEL Approach

Under review · Social Science & Medicine · SSCI Q1 · 2025.04

The Resonance of 'Wearing the Jersey': An Examination of How Jersey Design Influences Fans' Identity Based on RST-DEMATEL Modeling

Under review · Soccer & Society · SSCI Q3 · First author

Research Project

Analysis of Design Decision-Making Pathways for Integrating Traditional Intangible Cultural Heritage Furniture into Modern Furniture Lifestyle Settings Based on a Quality-Oriented Mixed-Methods Research Approach

2024 · 基于质量结合研究方法探讨传统非遗家具融入新时代家具生活场之设计决策路径分析

This project studies sustainable product-development pathways for integrating Lingnan rosewood furniture into contemporary home-living scenarios. It identifies sustainability crisis factors, constructs a development framework, analyzes sales and image data with machine-learning methods, evaluates embodied user experience, and develops multi-objective design criteria.

Improvement ideas for the visual communication design of outdoor public health advertisements in old communities of large cities: Evidence from Guangzhou, China

2024 · 大城市老舊社區戶外公共衛生廣告的視覺傳達設計改進思路：來自中國廣州的證據

This study clarifies visual information communication mechanisms in old urban communities, tests the positive effects of outdoor public health advertisements on residents' health literacy and sense of community belonging, extracts significant visual communication design factors, and proposes improvement strategies based on Chebei Community in Guangzhou.

Research on the development factors of Cantonese Opera and students' attention assessment framework based on machine learning technology

2024 · 基於機器學習技術的粵劇發展因素與學生注意力評估框架研究

The study uses grounded theory interviews with experts and parents to identify factors influencing Cantonese Opera development, then combines classroom video analysis, computer vision, and machine-learning algorithms to build a student attention assessment framework for traditional culture education.

Selected manuscripts

[1] Applying Rough Set Theory (RST) to Explore the Effects of Graffiti and Surroundings on Human Perceptions of Safety

Published · Cities · SSCI Q1 · 2025.09

Co-author: Yue Mao, Xu Zhang, Bo-Wei Zhu, Lei Xiong*, Guan-Qiang Wang*, Zi-Jie Zou, Gwo-Hshiung Tzeng

[2] Building Community Resilience through Visual Communication: A Theoretical Framework for the Impact of Outdoor Public Health Advertising on Health Perceptions and Behaviors

Under review · Patient Education and Counseling · SSCI Q1 · 2025.10 · First author

Co-author: Xu Zhang, Yue Mao, Lei Xiong*, Bo-wei Zhu

[3] Influence Mechanisms of High-End Nursing Home Information Attributes on Consumer Click-Through in Online Channels: An Integrated RSA-DEMATEL Approach

Under review · Social Science & Medicine · SSCI Q1 · 2025.04

Co-author: Yue Mao, Zi-Jie Zou, Xu Zhang, Si-Jie Li, Guan-Qiang Wang, Gwo-Hshiung Tzeng, Bo-Wei Zhu

[4] The Resonance of 'Wearing the Jersey': An Examination of How Jersey Design Influences Fans' Identity Based on RST-DEMATEL Modeling

Under review · Soccer & Society · SSCI Q3 · First author

Co-author: Xu Zhang, Yue Mao, Zi-Jie Zou, Lei Xiong*, Guan-Qiang Wang*

Skills

Research methods: Rough Set Theory, DEMATEL, T-test method, PLS-SEM, AHP, ANP, LDA, regression analysis, clustering analysis.

Tools: SPSS, Python, Amos, Rose 2, Nvivo, Adobe Photoshop, Adobe InDesign, 3dMax, SketchUp, Depthmap.

Language: TOEFL iBT Score: 105.

Research interests

- Multi-Attribute Decision Making 多屬性決策
- Machine Learning 機器學習
- Design Decision Analytics 設計決策分析
- User Behavior and Experience 用戶行為與體驗
- Interdisciplinary Design Research 跨學科設計研究
- Design and Environmental Sustainability 設計與環境可持續性
- Decision-making Optimization 決策優化
- Design and Urban Social Culture 設計與城市社會文化