Qi Yang

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Academic Appointments

2025 – now
Madison, US

University of Wisconsin-Madison
Assistant Professor
Department of Design Studies, School of Human Ecology

Education

2020 - 2025
Ithaca, US

Cornell University
Ph.D. in Human Behavior and Design
Department of Human Centered Design, College of Human Ecology
Minor in Psychology
Minor in System Engineering
Committee: Saleh Kalantari (Chair), Adam Anderson, Patrick Reed

2017 - 2020
New York, US

Columbia University
Master of Architecture
Graduate School of Architecture, Planning and Preservation
Graduation Honor Award for Design and Visualization

2012 - 2015
Hong Kong, China

University of Hong Kong
Bachelor of Arts in Architectural Studies
Department of Architecture

Refereed Journal Publications

Yang, Q., Feng, S., Zhao, T., & Kalantari, S. (2024). Design with myself: A brain–computer interface design tool that predicts live emotion to enhance metacognitive monitoring of designers. International Journal of Human-Computer Studies (IF: 5.4), 185, 103229.
https://doi.org/10.1016/j.ijhcs.2024.103229

Kalantari, S., Mostafavi, A., Xu, T. B., Lee, A. S., & **Yang, Q**. (2024). Comparing spatial navigation in a virtual environment vs. an identical real environment across the adult lifespan. Computers in Human Behavior (IF: 9.9), 108210.
https://doi.org/10.1016/j.chb.2024.108210

Yang, Q., & Kalantari, S. (2024). Real-time continuous perceived uncertainty annotation for spatial navigation studies in buildings. Journal of Building Engineering (IF: 6.4), 82, 108250.
https://doi.org/https://doi.org/10.1016/j.jobe.2023.108250

Yang, Q., Cruz-Garza, J. G., & Kalantari, S. (2023). Brain–computer interfaces as an architectural design tool: Feasibility and usability study. Automation in Construction (IF: 10.3), 154, 105011.
https://doi.org/10.1016/j.autcon.2023.105011

Zhu, B., Cruz-Garza, J. G., **Yang, Q**., Shoaran, M., & Kalantari, S. (2022). Identifying uncertainty states during wayfinding in indoor environments: An EEG classification study. Advanced Engineering Informatics (IF: 8.8), 54, 101718.
https://doi.org/10.1016/j.aei.2022.101718

Yang, Q., R. K. Dubey, and Kalantari, S (2024). PATH-U: A data-driven agent-based wayfinding model incorporating perceived path uncertainty and cognitive strategies in unfamiliar indoor environments. Building Simulation (IF: 6.2)

Yang, Q., & Kalantari, S. (In-progress). A Systematic Literature Review of Continuous Human Behavior Models of Human Navigation.

Yang, Q., Mostafavi, A., Ashour, M., & Kalantari, S. (In-progress). Investigating How Rhythm of Decisions and Confirmatory Information Affect Perceived Uncertainty and Wayfinding Behaviors.

Refereed Conference Proceedings

Yang, Q., Feng, S., Zhao, T., & Kalantari, S. (2023). Co-Design with Myself: A Brain-Computer Interface Design Tool that Predicts Live Emotion to Enhance Metacognitive Monitoring of Designers. In Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems (pp. 1-8). https://doi.org/10.1145/3544549.3585701

Yang, Q., Cruz-Garza, J. G., & Kalantari, S. (2021). MindSculpt: Using a Brain-Computer Interface to Enable Designers to Create Diverse Geometries by Thinking. In Proceedings of 2021 ACADIA Conference, the Association of Computer Aided Design in Architecture, pp. 182-193. 2021. https://doi.org/10.52842/conf.acadia.2021.182

Presentations

2024 2.29	Speaker “Enhancing data-driven architectural design by integrating human experience” at the Academy of Neuroscience for Architecture (ANFA) Doctoral Platform
2023 6.22	Abstract “Cognitive Agent Modeling for the Simulation of Spatial Navigation Behaviors in Indoor Environments” at the EDRA 54 Environmental Design Research Association, Mexico City, Mexico
2023 6.22	Symposia “Two Novel Methods of Measuring Research Participant Uncertainty during Wayfinding Tasks” at the EDRA 54 Environmental Design Research Association, Mexico City, Mexico
2023 6.22	Symposia “WayFind: An Open-Source Tool for Wayfinding Research in Indoor Environments” at the EDRA 54 Environmental Design Research Association, Mexico City, Mexico
2022 6.16	Poster “BCI-VR Design Tool” at Cornell XR Retreat at the Cornell Tech Campus, New York City, US
2022 4.21	Speaker “VR&AR in Wayfinding Research” at the Western New York Augmented and Virtual Reality (AR/VR) Mini-Conference, Rochester University, US

2021
6.7

Abstract “MindOpen-Prototyping Realtime BCI for Designers in Virtual Reality based on Self-Chosen Motor Imagery” at the BCI Society

Teaching and Mentoring

2025
Cornell University

Human Computer Interaction Design

Instructor

Topics

- Human AI Co-creation
- Design Thinking

2020 - 2024
Cornell University

Human Centered Design

Guest Lecturer

Topics

- DEA 6406 Generative Design - “Introduction to Space Syntax”
- DEA 2030 Design Portfolio and Communication – “Collage and Visualization”
- DEA 2730 Human Centered Design – “Mood Board”, “Rapid Prototyping”, “Ideation”
- INFO 3450 Human Computer Interaction and Design – “Design Thinking”

Teaching Assistant

Courses

- DEA 6520 The Ambient Environment
- DEA 4401 Adaptive Reuse Studio: Recycling the Built Environment
- DEA 4025 Design for Change: Imagining Decolonial Futures
- DEA 2730 Human Centered Design
- DEA 2030 Design Portfolio and Communication
- DEA 1110 Make a Difference by Design
- DEA 1100 Design Generations

Duties

- Gave advices on concept, research, design strategy, visualization, Arduino, and presentation during desk chats, office hours and reviews.
- Collaborated with the professors to update their syllabus.
- Organized logistics for reviewers, grading, and attendance.

2018 - 2020
Columbia University
GSAPP

Architectural Design and Representation

Teaching Assistant

Courses

- ARCH 4001 Core I Architectural Design Studio
- ARCH 4024 Architectural Drawing & Representation Studio I (ADRI)
- ARCH UN3400 Environmental Visualization

Duties

- Gave advices on concept, design strategy, visualization, and implementation twice a week.
- Gave tutorials about the visual programming platform, virtual reality, augmented reality, and rendering software.
- Collaborated with professors to organize teaching activities and logistics.

2020 - 2024
Cornell University

Mentoring

- Ziyang Qin, Cornell DEA B.S student 2024 – research, machine learning
- Debbie Jung, Cornell DEA B.S student 2023 – honor thesis, research
- Tianlin Zhao, Cornell Computer Science M.S – research
- Yibing Lu, Cornell DEA B.S student 2022-2023 – research, career
- Arthur Wayne, Cornell Statistics-Economics B.S student 2022-2023 – app development
- Hira Mirza, Cornell Human Development B.S student 2022-2023 – honor thesis, research
- Angella Lee, Cornell Human Biology, B.S student 2021-2022 – research, EEG
- Yingyi Shu, Cornell Information Science, M.S student 2021-2022 – research, EEG, career

Honors, Awards, and Fellowships

2023	CHE Alumni Scholarship Graduate Fellowship
2020	Cornell Fellowship
2017-2020	Selected for GSAPP Abstract 2017-2020
2020	William Kinne Fellows Travelling Prize
2020	Honor Award for Design and Visualization
2019	Architecture MasterPrize in Products/Building Envelope
2018	Buell Center Paris Prize Winner
2012-2015	HKU Foundation Scholarship for Outstanding Mainland Students

Academic Service

Associate editor	International Journal of Human Computer Studies
reviewer	ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW)
reviewer	ACM Designing Interactive System (DIS)
reviewer	SIGCHI The Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)
reviewer	Conference on Human Factors in Computing Systems (CHI)
reviewer	The Creativity & Cognition (C&C) conference
reviewer	HERD: Health Environments Research & Design Journal

Professional Affiliations

Member	Academy of Neuroscience for Architecture (ANFA)
Member	XR@Cornell, Cornell University
Member	Environmental Design Research Association (EDRA)
Member	Brain Computer Interface Society