

Yongming Huang

www.yongminghuang.com

Yongming Huang is a Ph.D. student at the Graduate School of Horticulture, Chiba University, specializing in the Landscape Course (Landscape Architecture). He is also one of the founders of Nature AI Lab, where he serves as both a Researcher and the Head of Coordination. His research focuses on the interdisciplinary application of big data and machine learning technologies in urban vitality analysis – particularly addressing environmental justice and macro-/micro-scale urban vibrancy through quantitative studies employing various advanced methods.

He holds a Master of Architecture and Environmental Design (Urban and Architecture) from Kyoto University of the Arts, and a Bachelor's degree in Environmental Design (Architecture) from the College of Communication and Art Design at the University of Shanghai for Science and Technology (USST). His recent work was accepted for presentation at the abstract sessions of ACSP, EDRA 2024, and IFLA 2024.

Yongming's research interests include human-environment interaction and well-being, urban vitality, and environmental justice.

2-116 Kitashirakawa Uryuzancho, Sakyo Ward, Kyoto, 606-8271. y-huang2166@st.kyoto-art.ac.jp . 08059206951

Main Research Themes

Space quality and vitality | The interdisciplinary application of big data and machine learning technologies to analyze the association between built environment and street vitality.

Spatial morphology and human activity patterns | The study of spatial morphology and human activity patterns reveals how various architectural and urban forms influence interactions and behaviors with space.

Human-nature Interaction and Wellbeing | Exploring the dynamic relationships between humans and urban natural environments to enhance mental and physical health.

Education

CHIBA UNIVERSITY

Ph.D. student at the Landscape Course, Graduate School of Horticulture
Research Cluster: Urban nature and vitality

Chiba, Japan
May 2025 – Present

KYOTO UNIVERSITY OF THE ARTS

Master of Architecture and Environmental Design
Research Cluster: Architecture and urban design
The program completed in 2 years

Kyoto, Japan
Mar 2025

UNIVERSITY OF SHANGHAI FOR SCIENCE AND TECHNOLOGY

Bachelor of Art in Environmental Design
The program completed in 4 years, Outstanding Graduate

Shanghai, China
Jun 2019

Academic and Professional Experience

Researcher & Head of Coordination | Nature AI Lab
Academic Research, Literature Collection, Data Analysis and Visualization, and Coordination of Work

Vancouver, Canada
May 2024 – Present

Adjunct Teaching Fellow | University of Shanghai for Science and Technology
Technical Support and Academic Thesis Advising

Shanghai, China
Jan 2024 – Present

Designer Assistant | Shanghai Xian Dai Architectural Design (Group)Co.,Ltd
Responsible for on-site measurement, spatial analysis, design proposals, technical drafting, 3D modeling, and rendering to support project development and execution

Shanghai, China
Sep 2015 – Oct 2017

Skills

Computational Design and Landscape Architecture Rhino | Grasshopper | SketchUp | Lumion | V-Ray
Spatial Data Analytics ArcGIS Pro | ArcGIS | QGIS
Data Statistics and Visualization Python | R Studio | SPSS

Publications

Peer-reviewed Articles

7. **SCI:** Jiayue Sun¹, Xinran Cai², Yuxuan Cai³, Maoting Shen⁴, **Yongming Huang⁵**, and Mingze Chen², Zhuohao Yang⁶, Shengzhao Yu⁷, *. Dissecting Museum Visit Dynamics through Multi-source Data: A Comprehensive Analysis of Macro and Micro-Building environment and Soci-economic Characteristics. *Plos one* (Under Review)
6. **SCI:** Cai, Yuxuan^{a+}, **Huang, Yongming^{b+}**, Chen, Anzhi., Yang, Zhuohao., Chen, Mingze., Wen, Yuhan., Yang, Qiuyi., Li, Xiaowei*. Subjective Perception or the Physical Environment: Which Matters More for Public Area Visitation Thresholds Across Different COVID-19 Pandemic Stages? *Urban Forestry & Urban Greening* (Review Complete)
5. **SCI:** Wang, Zhanzhu., Shen, Maoting., **Huang, Yongming***. The Relationship Between Color Combinations of Building Facades and Visual Quality: Combining Eye-Tracking Technology and Subjective Evaluation. *Applied Sciences* | <https://doi.org/10.3390/app14188227>
4. **SCI:** **Huang, Yongming.**, Du, jiani., Chen, Mingze*, Lin Yuxuan., Huang Shaopo., Cai, Yuxuan. Evaluating the spatial-temporal impact of urban nature on urban vitality in Vancouver: A social media and GPS data approach. *Land Use Policy* (Under Review)
3. **SCI:** Wang, Zhanzhu., Shen, Maoting., **Huang, Yongming***. Exploring the Impact of Facade Color Elements on Visual Comfort in Old Residential Buildings in Shanghai: Insights from Eye-Tracking Technology. *Buildings* | <https://doi.org/10.3390/buildings14061758>
2. **SCI:** Chen, Mingze*, **Huang, Yongming.**, Zhen, Yuqiao., Du, jiani., Cai, Yuxuan., Song Yang. Defining urban vitality using image-based, text-based, and GPS data. *Nature cities* (Under Review)
1. **SCI:** **Huang, Yongming.**, Chen, Mingze*. Multi-Scale Street Vitality Analytics: A Comprehensive Review of Technologies, Data, and Applications. *Computers, Environment and Urban Systems* (Under Review)

Conference

2024

Chen, Mingze., **Huang, Yongming***., Zheng, Yuqiao., Du, Jiani. Defining Urban Vitality Using Text-based, Image-based, and GPS Data | **2024 ACSP** (Association of Collegiate Schools of Planning) Conference Abstract (Accepted)

Chen, Mingze., **Huang, Yongming***., Zheng, Yuqiao., Du, Jiani. Evaluating Urban Vitality with Big Data across 10 Global Cities | **2024 IFLA** (International Federation of Landscape Architects) Conference Abstract (Accepted)

Chen, Mingze., **Huang, Yongming***., Zheng, Yuqiao., Du, Jiani. Evaluating Urban Vitality with Big Data: Insights from Social Media and GPS Data across 10 Global Cities | **2024 EDRA** (Environmental Design Research Association) Conference Abstract (Accepted)

Reviewer of Journal Manuscripts

Sustainable Cities and Society | Plos one | npj Heritage Science

Leadership Experience

UNIVERSITY OF SHANGHAI FOR SCIENCE AND TECHNOLOGY LANDSCAPE LAB

Leader

Technical and academic paper Guidance Course

Workshop of paper writing, technology development, data analysis and visualization

Jan 2024 – Present

Skills & Certificates

Technical:

GIS, R Studio, Grasshopper, Python, SPSS Statistic

-Adobe Series (PS, AI, ID, PR), AutoCAD -
Modelling: Rhino, SketchUp, Vray, Lumion -
Microsoft Word, PPT, Excel

Language: Mandarin, Japanese and English

Certificates

- BIM Project Manager | **MIIT**
- National Computer Innovation Technology advertisement design high level | **MOHRSS**
- BIM Level 1 Modeler | **MOHRSS**
- N1 145 | **JLPT**
- 99 | **TOEFL**
- 780 | **TOEIC**

Professional Affiliations

Member | Environmental Design Research Association (EDRA)