SIJIE YANG

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Urban Analytics Lab, Department of Architecture, National University of Singapore, Singapore

EDUCATION

National University of Singapore, Singapore

2023 - present

Full-funded PhD Candidate in Architecture. Research Direction: Smart City and Urban Informatics. Supervised by Filip Biljecki

University College London (UCL), London, the United Kingdom

2021 - 2022

Master of Science, Space Syntax: Architecture and Cities; <u>Distinction, the Highest-Level Degree</u>. Distinction Master Thesis. Course taken: BARC0015 Knowledge-Based Design; BARC0016 Buildings, Organizations and Networks; BARC0018 Spatial Cultures; BARC0019 Spatial Justice; BARC0020 Architectural Phenomena; BARC0024 Space Syntax Methodology and Analytical Design.

University of Pennsylvania (UPenn), Philadelphia, the United States

2021 - 2025

Master of Computer Science and Information Technology; <u>GPA 4.0 out of 4.0</u>. Core Course: CIT 5910 Python Programming; CIT 5920 Discrete Mathematics; CIT 5930 Computer Systems; CIT 5940 Data Structure and Software Development; CIT 5950 Computer System Programming; CIT 5960 Algorisms and Computation.

Chongqing University (CQU), Chongqing, China

2016 - 2021

Bachelor of Architecture (5-year program); Top 5%; GPA 3.6 out of 4.0. Awarded Engineer of Excellence by Ministry of Education in China.

University of California, Berkeley (UCB), California, the United States

2018 - 2019

Undergraduate Certificate. Awarded Excellent International Student.

PROFESSIONAL EXPERIENCE

Urban Analytics Lab, Department of Architecture, National University of Singapore

2023 - present

PhD Researcher

NUS Cities, College of Design and Engineering, National University of Singapore

2023 - present

Teaching Assistant in AR5323 Green and Well Built Environment

School of Engineering and Applied Science, University of Pennsylvania

2022 - present

Teaching Assistant in Mathematical Foundation of Computer Science, and Introduction to Computer Systems

Areas of teaching for master students include Graph Theory, Formal Logic, Function, Probability, and others. Assist to grade the weekly assignments for master students, assist to answer students' questions on the online Ed Discussion platform, hold private office hours for students who have questions.

Data Morphosis Lab, Cornell University, Hong Kong University

2022 - present

Research Assistant, Supervised by Dr. Waishan Qiu,

Assisted to conduct urban morphology analysis and GIS analysis of specific cities, assisted to sort out research logic, collect data and write papers. Discover the latest information in the field of urban science and explore new potential research topics.

Key Laboratory of New Technology of Cities in Mountain Area, Chongqing University, Chongqing, China

Aug 2019 - Aug 2020

Research Assistant in Urban Soundscape Analysis, Supervised by Prof. Hui Xie,

Assisted to conduct a few site surveys related to the urban social environment, which includes the measurement of urban soundscape, and the examination of the performance of porous sound absorbing materials. Assisted to sort out research logic, collect data and write papers.

Institute of Architectural History and Theory, Chongqing University, Chongqing, China

Jun 2019 - Jul 2019

Research Assistant in Architectural Surveying, Supervised by Dr. Jiang Jialong,

Assisted to site investigation of ancient Chinese architecture, and the target building is the Dragon King Temple in Zigong County, Sichuan Province, China. Building mapping was carried out using means including drone mapping, point cloud scanning mapping, laser ranging and hand mapping.

Lacime Architects Co., LTD, Shanghai, China

Jul 2020 - Mar 2021

Architectural and Urban Design Intern, Supervised by Architect. Yin Tan,

Assisted the design and drawings of several architecture and urban design projects, including site plans, construction drawings. Assisted to sort out the design logic and complete the presentation documents for several urban design projects.

PUBLICATIONS

Yang, S., Chong, A., Liu, P., & Biljecki, F. (2025). Thermal comfort in sight: Thermal affordance and its visual assessment for sustainable streetscape design. *Building and Environment*, 112569.

Yang, S., Krenz, K., Qiu, W., & Li, W. (2023). The role of subjective perceptions and objective measurements of the urban environment in explaining house prices in greater London: A multi-scale urban morphology analysis. *ISPRS International Journal of Geo-Information*, 12(6), 249.

Xu, X., Qiu, W., Li, W., Huang, D., Li, X., & Yang, S. (2022). Comparing satellite image and GIS data classified local climate zones to assess urban heat island: A case study of Guangzhou. *Frontiers in Environmental Science*, 10, 1029445.

Yang, S., & Yang, Y. (2022, August). Cultural impacts on traditional Chinese garden design: A configurational comparison between traditional Chinese imperial and private gardens using space syntax. *In Proceedings of The 13th International Space Syntax Symposium* (p. 414). International Space Syntax Symposium.

Yang, S., & Psarra, S. (2022). The social impact of atrium space in multilevel buildings: An analysis of university libraries using space syntax. *Available at SSRN 4249348*.

AWARDS & EXHIBITION

AWARDS & EXHIBITION	
NUS Research Scholarship, Singapore	Mar 2023
Granted by Ministry of Education, Singapore.	
MSc Graduated with Distinction, London, the United Kingdom	Dec 2022
Granted by University College London.	
B.Arch. Graduated with Engineer of Excellence in Chinese University Engineer Training Programme, Chongqing, China	Jun 2021
Granted by the Ministry of Education, China.	
The 6th China Human Environment Design Academic Year Award, Honourable Mention, Guangzhou, China	Oct 2020
Design competition for all the university students; Judged by The Architectural Society of China and Tsinghua University.	
Urban design project with Wang Jie and Ren Yi, named "Inter Streetwise", as team leader and main designer.	
The 5th CUC CUP Architecture Design International Competition, 3rd Place, Hangzhou, China	Oct 2019
Design competition for all the university students; Judged by The Architectural Society of China.	
Architecture design project with Gao Yanan, museum design named "Back to Yi Nationality", as team leader and main designer.	
Young Designers Award, Honourable Mention, Nanjing, China	Aug 2019
Design competition for China's undergraduate students: Granted by Southeast University.	

Design competition for China's undergraduate students; Granted by Southeast University.

Architecture design project with Gao Yanan, museum design named "Back to Yi Nationality", as team leader and main designer.

Architecture Biennale 2018, 16th International Architecture Exhibition, Art Document Exhibition of Chinese Teachers & Students in Architecture Majors of Colleges and Universities, Venice, Italy

Oct 2018

Recognized by National Steering Committee for Architecture (China);

Individual Architecture Painting "Summer" depicting Modern Art Museum, Shanghai, in 2018 summer.

SKILLS

Computer Skills | Rhinoceros | SketchUp | Grasshopper | Python | Java | QGIS | DepthmapX | Stata | SPSS | Photoshop | Microsoft Office