YUXUAN CAI

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Education

University of Chicago   Chicago, IL
Master, Computational Social Science.   06/30/2025
Awards and honors:
- 2023-2024 Phoenix Research Scholarship
- 2023-2024 Social Sciences Promise & Merit Scholarship

University of California, Berkeley   Berkeley, CA
Master, Architecture Design (M. arch1) Withdraw   06/31/2023

Relevant Coursework:
- CYPLAN C88 Data Science for Smart Cities. Grade A
- LDARCH 221 Quantitative Methods in Environmental Planning. Grade A-
- PBHLTH 277A Public Health Maps and Spatial Analysis. Grade A

Awards and honors:
- 2022 The Fred and Beth Karren Architecture Fellowship

SUMMER SCHOOL   Shanghai, CHINA
Shanghai Jiao Tong University   07/2020
Shanghai Jiao Tong University Teaching Assistant & Exhibition Fellowship

Wuhan Polytechnic University   Wuhan, CHINA
Awards and honors: 07/20/2019
- Outstanding Student of Wuhan Polytechnic University
- 2017-2019-Wuhan Polytechnic University Scholarship
- Wuhan Polytechnic University of Campus Microfilm Competition, Second Prize
- Young Volunteers Association of Wuhan Polytechnic University, Excellent Minister

Publications

Journal Article Part:
07/2023-Now
Mingze Chena, **Yuxuan Cai**. Artificial Intelligence Technologies in Geo-design and Planning: A Systematic Review (In progress)
09/2023
Science Citation Index (SCI): Mingze Chen, **Yuxuan Cai,** Shuying Guod, Grant Moseye, Qiuyi Yang, Ruilin Sung, Wei Hea,*. Reimagining Urban Nature Vitality in San Francisco: An Interdisciplinary Approach Combining Census Data, Street View Images, and Social Media Analysis | **Landscape and Urban Planning** (Under review)
Conference Paper Part:
10/2023
Chenan Shen, Qixian Jian, **Yuxuan Cai**, Yiming Cheng. Research on the differentiation between app-recommended travel routes based on road surface damage and the actual routes taken by travelers. | (prograss)
10/2023
Yuxuan Cai, Hongqian Li, Shuyao Dai*. Burnout in the Built Environment: A Spatial Analysis of Emotional and Urban Elements Interaction-a case study in Shanghai | AN INTERNATIONAL CONFERENCE ON URBAN AFFAIRS 2024 (Under review)
09/2023
Yuxuan Cai. Hongqian Li, Shuyao Dai*. Multiscale Assessment of Urban Built Environment and Socio-Economic Determinants on Mental Health: A Comparative Analysis Based on Linear Models and XG-Boost | CAADRIA2024

(https://caadria2024.org/) Abstract (Abstract Accepted)

09/2023
Zheng Cong, **Yuxuan Cai***, Yuxuan Liu. Research and Application of Climate Data Visualization Tools in Landscape and Urban Planning | Digital Landscape Architecture Conference 2024 (Under review)
06/2023
Xiwei Shen*, Grant Mosey, Mingze Chen, **Yuxuan Cai**. A Model for Identifying Suitable Living Areas in London: Mitigating the Impacts of Urban Heat Island (UHI) on Public Health | 7th Advances in Geomatics Research Conference (https://www.agrc2023.com/) Abstract (Accepted)
06/2023
Xiwei Shen*, Grant Mosey, Mingze Chen, **Yuxuan Cai** Post Occupancy Evaluation of the Urban Public Space through social media: a case study of Bryant Park, NY | The International Conference on Data Science, AI and Analytics: Bridging the Gap Between Theory and Practices (ICDSAIA-2023) Abstract (Accepted)
06/2023
Xiwei Shen*, Grant Mosey, **Yuxuan Cai**, Mingze Chen. Advancing Environmental Design with Phytoremediation of Brownfield Soils Using Spontaneous Invasive Plants | INTERNATIONAL CONFERENCE ON POLLUTION CONTROL & SUSTAINABLE ENVIRONMENT Abstract (Accepted)
06/2023
Yuxuan Cai, Hongqian Li, Shuyao Dai*. Multi-factors evaluation of the impact of the street-level on sexual crime occurrences using computer vision and big data - a case study of Manhattan | 35TH AESOP (Association of European schools of Planning) Annual Congress (https://aesop-planning.eu/activities/events/annual-congress) Full Paper (Accepted) Oral Report
06/2023
Hongqian Li, **Yuxuan Cai**. A Bottom-Up Method: Human Perceptions to Inform Urban Landscape Design Strategies for Promoting Biking-Friendliness: A Case Study in Shanghai, China | 2023 IFLA (International Federation of Landscape Architects) Conference Abstract (Accepted) Oral Report
05/2023
Yuxuan Cai, Hongqian Li, Wenxuan Cai, Minghao Xu. Multivariable Assessment of Urban Rooftop and Vertical Greening Impact on Urban Heat Island Based on Computer Vision Semantic Segmentation Modeling Framework - A Case Study of San Francisco | 2023 ECLAS (European Council Landscape Architecture Schools) Conference Abstract (Accepted)

Online Part:
05/2022
- CAMPUS-FIGHT! A GUIDEBOOK FOR A CAMPUS TRANSFORMATION
https://issuu.com/yuxuancai/docs/campusfight0521
07/2022
- MAGICAL FOODSCAPE
A Guidebook For Re-planning The Cities Base On The Culture, Food And The Built Environment
https://www.asla.org/2021studentawards/3468.html — One of the authors-Forthcoming book
10/2020
- iF WORLD DESIGN GUIDE https://ifworlddesignguide.com/entry/298431-the-rebirth-of-karez
06/2020
- Winner of the Merit Award in the Student of the 2020 WLA Awards
https://worldlandscapearchitect.com/student-project-indonesia-mine-restoration-plan/#.XvyoxfmWZhE
09/2019
- Study of Sustainable Landscapes In Oasis Cities
Published in "Urban Life Magazine" No. 13 of 2019 (Article Number: 2019-13-1328)
the domestic issue number is CN62-1149 / G0, and the international issue number issn89-0304.
09/2019
Laka Perspectives https://lakaperspectives.com/
10/2018-09/2019
- 14th &16th Chinese Landscape Architecture Student Works
http://expo.landscape.cn/show/2018200   http://www.landscape.cn/landscape/11465.html

Academic Awards and Honors In Design

- 2023 World Landscape Architecture Awards-Merit Award
- 2023 Sydney Design Award
- 2023 The Council of Educators in Landscape Architecture - THE CREATIVE SCHOLARSHIP AWARD – Nomination
- 2022 Landscape Institute Award - Innovation and Research Award finalist
- 2022 Architecture Master Prize-Student Educational Landscape & public landscape Award
- Golden Pin Concept Design Award - Two Item for Shortlist
- 2021 American Society of Landscape Architects Awards-Communications Category Student Honor Awards
- 2020 World Architecture Awards - 36th Cycle
- 2020 Asian Design Award-Ecological, Healthy and Sustainable - Bronze Award & Temporary and Movable Building - Excellence Award
- 2020 China human residential environment Design Academic Award
Landscape Planning Award - Organizers: Tsinghua University and the Ministry of education of China
- 2020 Landscape Architecture Frontiers Award - Landscape Planning Award
- 2020-02 iF Design Award-Talent Award
- 2020 Architecture Master Prize - Student Landscape Architecture - Best Of Best
- 2020 Creative China The Fourteenth National Design Art Awards - The third prize
- 2020 World Landscape Architecture 2020 WLA Awards-Student Analysis & Planning Merit Award
- 2020 Innovative future design competition - The second prize - Chengdu beilei community street renovation design
- 2020 World Landscape Architecture 2020 WLA Awards-Student Design Shortlist - Death As Life
- 2020CADA International Conceptual Art Design Awards - one Silver Medal & one Bronze Medal
- 2020 Laka Architecture Competition - Honorable mentions-[The Rebirth of Karez: Oasis Plan]
- 2020 World Campus Masters Graduation Design Work Competiton - Landscape Category TOP 3
- 2020 Singapore Art Design Contest - Silver Medal
- 2018 UNL Wuhan university interior Design Competition - Second Prize
- 2018 Landscape Architecture Frontiers Award- -Best Choice Award & Interdisciplinary Award

Exhibition

- 2021 Shanghai Jiao Tong University Exhibition Fellowship
- 2020 Beijing International Design Week TOUR OF DESIGN-The 3rd Exhibition Of Contemporary International Ink Design - Honorable Mention
- 2020 iF Design Exhibition - iF Design Center Chengdu
- 2020 16th Chinese Landscape Architecture Graduate Works Exhibition
- 2020 Laka Competition: 'Architecture that Reacts' Exhibition
- 2019 Invited to participate in the[HAVEN]Static Space Installation Art Exhibition
- 2018 14th Chinese Landscape Architecture Graduate Works Exhibition

Professional Experience

Data Driven Lab Limited (UK)   London, UK
Co-Founder/Part time researcher   12/2021 – NOW
- Using computer vision, media data and other ways to analyze the vitality of San Francisco city.

HOPE Design   Shenzhen, China
Landscape Designer   06/2021 – 02/2022
- Shen Zhen Pailao river blueway planning and design
  Collaborated with Ton Venhoeven c.s Architekten B.V. and Huadong Engineering Corporation Limited.
  In charge of Su modeling and text management and graphic design.
- Shenzhen Nanshan District Committee Square Renovation
  Work in Su modeling and vegetation design.
- Shenzhen Tantou river blueway planning and design.
  In charge of urban concept design, text management and graphic design, Use GIS to analyze site information.

- Big Top Ridge City Grandstand Construction Project.
  In charge of concept design, text management and graphic design

AF EDU   Wuhan, China
Part Time Workshop Tutor   6/2023 – 9/2023
- Design Workshop Tutor and Critic

GN International Design LLC.   Shanghai, China
Landscape Assistant Designer   06/2021 – 02/2022
- China Merchants Shekou Plaza landscape concept design plan.
  Developed sketchup modeling.

Beijing Modo Art Design College   Beijing, China
Teaching Assistant   02/2020 – 05/2020
- Arranged 55 students' project update and communicated between teachers and students.
  Compiled social media weekly updates.
  Developed and coached technical skill course

INSCAPE Architecture(Working with Tom Leader Studio Inc.)   Beijing, China
Urban Design Internship   12/2019 – 02/2020
- Jingzhang railway heritage park concept plan competition -Working With Tom Leader Studio
  Inc. (Awarded).
  Developed urban design model, architectural elevation and graphic design.

Professional Awards and Honors In Design

10/2022
- IFLA AAPME Awards 2022-International Federation of Landscape Architects
Analysis and Planning -Honourable Mention-Shen Zhen Pailao river blueway planning
10/2021
- Shen Zhen Pailao river blueway planning and design(the first-win the bidding)
02/2020
- Jingzhang Railway Heritage Park Concept Plan Competition

Leadership & Activities

Wuhan Qidi Design Consulting Co.LTD   Wuhan, China
Co-Founder   12/2021– Now
- Committed to consulting services about landscape architectural, industrial, interactive and animation
  design.
- Siemens China 150th Anniversary Celebration online metaverse exhibition hall project - collaborated
  with AiHuaShen Co.LTD

Wuhan Polytechnic University Young Volunteers Association
Minister
- Ma Chi Road primary school volunteer teaching activities
- Voluntary clothing donation
- Volunteer for city activities

Wuhan Polytechnic University IZ Design Studio
Co-founder
- Design Software Workshop
- Weekly Seminar
- Enrollment management

Skills & Interests

Technical: Python, R
Language: Japanese N2, English
Laboratory: GIS, Matlab
Interests: RTS Game
Design Software: Rhino, AutoCAD, Adobe CC, SketchUp, V-Ray, Grasshopper, Processing, Figma, UE4
Certificate:

Research Experience

09/2023-Now
Walkability Research Review
Michigan State University
05/2023-07/2023
UNIVERSITY OF NEVADA, LAS VEGAS
-Research Assistant
Research paper: Reimagining Urban Nature Vitality in San Francisco. Adviser: Assistant Professor, Xiwei Shen
01/2023-Now
- Climate Change Research Group Berkeley, Texas A&M, Shanghai Jiao Tong University, British Columbia
Berkeley, Texas A&M, Shanghai Jiao Tong University, British Columbia
- Research project 1:
Quantify how climate change factors (temperature, air pollution, flooding) affect human
behaviors (health, economical) and how built environments moderate these impacts
Data collection and processing for Austin's phone visitation data and climate change factors.
Using Time space cube analysis and Emerging hot spot analysis to analysis data Safegraph, NOAA weather, and census
all included. To answer how park visitation changes as the city's ambient temperature rise.
- Research project 2:
Geo-weighted Regression on temperature sensitivity.
Identify important factors that impact long term park visitation during the summer.Global relationship.
Where are local relationships between predictors and dependent variables.
05/2022
- Qualitative database of landscape papers-paper pending
In processing http://landscapesci.com/
In charge of online database search engine design.
Data collection and processing for 340 papers.
Data correlation analysis and modeling.
05/2022
- CAMPUS-FIGHT! A Guidebook For Campus Transformation
In charge of design prototype, project and team management.
Collect campus data and questionnaire information.
2019-06/2020
- Magical Foodscape: A Guidebook for Re-planning the Cities Based on the Culture, Food and the Built Environment
In charge of design prototype, project and team management.
In charge of product design and book design.
- Exploring the coupling relationship between urban green space distribution and residents' health
status based on crowdsourcing data - A case study of San Francisco Bay Are
Courese Project-Maps and Spatial Analysis for Health Equity-thesis proposal processing
https://storymaps.arcgis.com/stories/85d0e7586d114d78aeaa7d6ab5d24a32
03/2023
- Examining the Interrelationships between Social Vulnerability, Crime Rates, and Urban Vitality Indicators in Asian
Communities: A Multivariate Analysis of Environmental Justice in the California Bay Area
Courese Project-Data Science for Smart Cities
03/2023

-Multivariate Assessment of the Integrated Social Vulnerability Index of Wildfire Risk in the Context of Environmental Justice: A Case Study of the California Bay Area
Yuxuan Cai, Wenxuan Cai
Courese Project-Data Science for Smart Cities-proposal processing
03/2023
- Influencing Microclimate and Reducing Wildfire Risk through Artificial Landscape and Plant Ecological Approaches in Sea Ranch, California: A Study on Marine Ranch Wildland Urban Interface
Yuxuan Cai, Wenxuan Cai
Courese Project-Quantitative Methods
02/2023
- Based Crowdsourced Data London Climate Change GWR Analysis
Research group project

Activities Experience

- Student | CCPHIT Virtual Series #1 IMA: Informatics, Mapping & Analysis Bootcamp Berkeley
- Student | 2023 Zhejiang University SDG Global Summer School - module Data Visualization Online
- Student | 2023 Climate Change AI Summer School https://www.climatechange.ai/events/summer_school
- Participator | 2023 Summer Institute in Computational Social Science at Tokyo, SICSS-Tokyo
- Student | 2023 Digital FUTURES WORLD : Workshops- CONTEXT + INTELLIGENCE
https://www.digitalfutures.world/workshops/173.html
- Student | 2022 Digital FUTURES WORLD : Workshops-Documenting the Digital in Architecture in China
- Student | International Workcamp for Healthy Cities Science and Planning 2023 Analysis techniques for healthy city data based on R language
- Student | Summer school Shanghai Jiao Tong University
- Student | 2021 Digital FUTURES WORLD : Workshops-Re-Form the World - 3D Style Transfer Machine Learning,3D Style Transfer, Neural Networks ,Generative Design
- Professional Jury | World Campus Masters Graduation Design Work Competition
- Student | 2018 International Conference on Designed Ecologies
- Student | Graphic Thinking - architectural typology online workshop - MAT Office
- Student | Diffuse space - emotional design online workshop - WEI Architectural firm
- Tutor | Design skill workshop-tutor
- Lecturer | 2020 Landscape Competition Online and Physical Lecture
https://www.bilibili.com/video/BV1Xp4y167JJ/?spm_id_from=333.337.search-card.all.click&vd_source=201eae190b5af0766ff2031aad495f8a

Member | American Society of Landscape Architects (ASLA)
Associate scholar | UrbanComp Lab
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