Zebin Chen

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EDUCATION

National University of Singapore, Singapore 2019 - 2020
Master of Arts in Urban Design 4.55/5 GPA

Shanghai University, China 2013 - 2018
Bachelor of Engineering in Architecture 3.79/4 GPA

SELECTED PUBLICATIONS

* Corresponding author

Universal Thermal Climate Index (UTCI)-adjusted pedestrian accessibility: Urban design exploration for climate-resilience in tropical climates
Elif Esra AYDIN, **Zebin Chen**, F. Peter Ortner, Jing Zhi Tay, Kelvin Li, Ryan Chua
Sustainable Cities and Society journal, 2026

Generative Urban Modeling for Walkable Neighborhoods: Design Optimization for Pedestrian-oriented Street Networks
F. Peter Ortner, **Zebin Chen***, Elif Esra AYDIN, Peng Song
Journal of Urban Design, 2025

Urban Data Analytics for Urban Heat Island Mitigation: A Case Study of Urban Design Exploration for Singapore's Tropical Climate
Elif Esra AYDIN, F. Peter Ortner, Praveen Govindarajan, Jing Zhi Tay, **Zebin Chen**
Case Studies in the Environment, 2025

Climate-Responsive Urban Planning Through Generative Models: Sensitivity Analysis of Urban Planning and Design Parameters for Urban Heat Island in Singapore's Residential Settlements
Elif Esra AYDIN, F. Peter Ortner, Peng Song, Anna Yenardi, **Zebin Chen**, Jing Zhi Tay
Sustainable Cities and Society journal, 2024

Hierarchical Co-generation of Parcels and Streets in Urban Modeling
Zebin Chen, Peng Song, F. Peter Ortner
Eurographics 2024, Computer Graphics Forum

Urban Fabric Generation: A comparative analysis of multiple vector field methods
F. Peter Ortner, **Zebin Chen***, Peng Song, Pengyun Qiu
Education and Research in Computer Aided Architectural Design in Europe(eCAADe), 2023

Design Space Recommendation: Assisting Users to Manage Complexity in Urban Design Optimisation
Jing Zhi Tay, F. Peter Ortner, Peng Song, Anna Claudia Yenardi, **Zebin Chen**
International Conference on Computer-Aided Architectural Design Futures, 2023

City Size Based Scaling of the Urban Internal Nodes Layout
Wenhan Feng, Bayi Li, **Zebin Chen**, Peng Liu
PLOS ONE, 2021

SELECTED WORK EXPERIENCE

Singapore University of Technology and Design, Singapore May 2022 – Jan 2026
Senior Research Assistant Full time

- Fully participated in a government agency-funded interdisciplinary project focused on developing tools for an urban planning and design platform. Responsible for back-end algorithm development at the intersection of computer graphics and design, and collaborated closely with front-end developers.

- Assisted in preparing and delivering materials for various presentations, lectures, and workshops. Also contributed to the drafting of project proposals and research plans.
- Conducted both independent and collaborative interdisciplinary research on computational design, architectural planning, and sustainability, leading to peer-reviewed publications.

WOHA Architects, Singapore Jan 2021 – May 2022
Architectural designer Full time
- Planning: Shanghai Future City Planning / Singapore LCK Concept Master Plan
- Elderly housing planning and architecture design in Xi'an
- High-rise office tower competition in Shenzhen

UNStudio, Shanghai Oct 2018 – Mar 2019
Trainee Full time
- A conceptual design for an exhibition hall for electric car enterprise
- Guocoland 18T residential project in Chongqing, contributed to the residential plan layout (Built)

ACADEMIC SERVICE

Option Studio, Singapore University of Technology and Design, Singapore Sept - Dec 2025
Teaching assistant
- Conduct weekly AI-assisted tool and modeling sessions, organize teaching activities, and provide design consultation.

Regen Kyoto Workshop, Kyoto Institute of Technology, Japan Oct 2025
Main instructor
- Design the tech-teaching framework, including the core tutorial content and instructional support, to teach the application of AI tools for conceptual design imagination.

AAG 2023, University of Stuttgart, Germany Oct 2023
Lecturer
- Organized and instructed workshop: Participatory City Form. Bringing Urban Design to the Digital Commons

SIGGRAPH, Pacific Graphics, Computers and Graphics
Reviewer

OTHER PROJECTS

Investigation of Small Apartments in Shanghai French Concession
Team Leader Jan 2016 – April 2018
- Field investigation on 40 apartments, help with building Data collection, reorganization and remodification of drawings

Comparative Research on Protection Technology of Sino-US Historical Architectures
Team Leader July 2017 – Sept 2017
- Edited materials of US historical architecture protection for academic and project acceptance

SKILLSET

Programming: Python, C#, C++, JavaScript
Modeling: Rhino+Grasshopper, Sketchup, AutoCAD, Revit, Houdini
Rendering: Vray, Keyshot, Enscape, Lumion
Media Editing: Adobe Creative: PS, AI, ID, PR, AE, AU

HONORS AND AWARDS

Outstanding Graduate of Shanghai	2018
National Scholarship	2017
Academic Scholarship	2017, 2016, 2015, 2014
Excellent Student	2016, 2014

DESIGN COMPETITION PRIZES

Selected Entry for Exhibition of OISTAT Theatre Architecture International Contest	2017
First Prize of Shanghai Urban Pop-up Book Design Competition on Public Space	2017
Top 30 of China-Italy Architecture Communication Alliance Exhibition	2016
Finalist Award of NIHON SEKKEI Future · Communication · Environment Design Contest	2016
Honored Prize of Canada Quebec 24H Innovation Contest	2015
Third Grade Prize of Shanghai University Computer Application Capacity Competition	2014