

Daoru Wang

Raleigh, NC | <https://www.linkedin.com/in/daoru-wang> | www.youtube.com/@Daoru_Wang

Education

North Carolina State University , Ph.D. in Design	Aug 2021 – Present
• GPA: 4.0/4.0	
Yale University , Master of Architecture	July 2019 – May 2021
• GPA: Not Applicable	
North Carolina State University , Bachelor of Architecture	Aug 2014 – May 2019
• GPA: 3.82/4.0	

Experience

Teaching Assistant , NORTH CAROLINA STATE UNIVERSITY – Raleigh, NC	Aug 2021 – May 2025
• Supporting teaching Architectural Structures 1 & 2 through grading, tutoring, and project guidance.	
• Developed a plugin to transfer complex 3D models from Grasshopper to SAP2000 to support future course development.	
Construction Worker , DAYLIGHT ROTATING TEST LAB – Raleigh, NC	Dec 2021 – Aug 2022
• Worked at the Daylight Research Lab, where responsibilities included wooden framing, floor installation, and roof installation.	
Research Assistant , BUILDING ENERGY TECHNOLOGY LAB – Raleigh, NC	Aug 2021 – Dec 2021
• Implemented Random Forest and Neural Network algorithms in Python to predict energy consumption across 5,870 samples with 8 data points each, achieving 83% accuracy with Random Forest and 96% with Neural Networks.	
Technical Advisor , HARVARD UNIVERSITY CAMLab – Cambridge, MA	Feb 2021 – Aug 2021
• Created a 3D parametric model of a historic 1056-wooden-pagoda structure, optimizing 60,000 components to 20,000 for efficiency and accuracy, and produced a demonstration video using Grasshopper and Python.	
Architectural Student Intern , YALE OFFICE OF FACILITIES – New Haven, CT	Oct 2019 – Feb 2020
• Created a series of 3D models and renderings to visually communicate design proposals to the team.	
Lecturer , SUZHOU UNIVERSITY OF SCIENCE AND TECHNOLOGY – Suzhou, China	Jun 2018 – Jul 2018
• Instructed the fundamentals of visual programming, covering basic operations in parametric tools and essential algorithms commonly used in 3D modeling.	

Publications

A Simple yet Powerful Dimensionality Reduction Method for Annual Daylighting Prediction and Its Inverse Process via pix2pix	Mar 2025
Daoru Wang, Wayne Place, Stephanie Yanqiu Li, Ruguan Liu, and Jianxin Hu	<i>Journal of Build. Eng.</i>
Parametric Modeling and Column Grid Analysis of the Sakyamuni Pagoda at Fogong Temple: Insights into the Yingxian Wooden Pagoda	Aug 2024
Daoru Wang, Stephanie Yanqiu Li, Ruguan Liu, Jianxin Hu, and Ang Wang	<i>Buildings</i>
Unfolding 3D Space into Binary Images for Daylight Simulation via Neural Network	Dec 2023
Daoru Wang, Wayne Place, Jianxin Hu, Soolyeon Cho, Tianqi Yu, Xiaoqi Zhan, Zichu Tian	<i>Journal of Daylighting</i>
A Machine Learning-Based Approach to Evaluate the Spatial Performance of Courtyards—A Case Study of Beijing's Old Town	Jul 2023
Tianqi Yu, Xiaoqi Zhan, Zichu Tian, Daoru Wang	<i>Buildings</i>

Exhibitions

Embodied Architecture - Cambridge, MA	Oct 2022 - Dec 2022
Pagoda of Fogong Temple	<i>Architecture of the Mind</i>
2018 Venice Biennale - Venice, Italy	May 2018 - November 2018
Infinity Airport	<i>Time Space Existence</i>

Skills

Languages: Python

Software: Revit, Dynamo, Rhinoceros, Grasshopper, Blender, Maya, AutoCAD, SAP2000, V-Ray, Enscape, Unreal Engine 5, InDesign, Photoshop, After Effects, Premiere