

# Huijie Zhang

## Personal Data

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## Education

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2022 (Expected) Ph.D., Geography, San Diego State University/University of California, Santa Barbara  
2017 M.A., Applied Ecology & Evolution, Stony Brook University  
2014 M.S., Ornamental Plants and Horticulture, Huazhong Agricultural University  
2011 B.S., Landscape Gardening, Huazhong Agricultural University

## Research Interests

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Machine learning, computer vision, pattern recognition,  
remote sensing image processing and analysis, spatial data analysis

## Publications

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1. **Huijie Zhang**, Li An, Small Object Detection in Urban Environment Using Convolutional Neural Network from Scratch (*in prep*)
2. **Huijie Zhang**, Li An, Richard Bilsborrow, Yongwan Chun, Shuang Yang, Jie Dai, Neighborhood Impacts on Household Participation in Payments for Ecosystem Services Programs: Methodological Exploration in China. (*Submitted*)
3. **Huijie Zhang**, Chi Gao, Yan Du (2013), The Application of the Stormwater and Wastewater Management in the Lakes Protection Planning of Wuhan City: Case Study of Yangchun and East Lake Connection Park Planning and Design of the Water Network Connection Project of East Lake in Wuhan City, *Chinese Society of Landscape Architecture (CHSLA) Annual Summit*. (Best Paper Award, in Chinese)
4. **Huijie Zhang**, Hongfei Qiu (2010), A Brief Discussion of the Heritage of the Campus Context in College Environment: with the Instance of Wuhan College Campus Environment *Huazhong Architecture*, 28(5), 141-144. (in Chinese)

## Awards and Honours

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2020 Graduate Student Travel Fund (Spring Cycle), San Diego State University  
2011 1st Prize, Planning Work, "Yuan Ye Award" International Landscape Architecture Graduate Student Design/Thesis Competition  
2010 Gold Award, Student Design/Thesis Competition "Challenge Cup" Business Plan Competition for College Students, Hubei Province, China  
2010 3rd Prize, College Students Excellent Scientific Research Achievements Award, Hubei Province, China  
2010 China National Scholarship (Top 1%)  
2009 China National Scholarship (Top 1%)  
2008 China National Scholarship (Top 1%)

## Services

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2019-2020 Lounge Committee, Department of Geography, University of California, Santa Barbara  
2009-2010 Vice President, College of Horticulture and Forestry Science, Huazhong Agricultural University

## Research Experience

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- 2015.10-2017.02 **The Interaction between Elevated CO<sub>2</sub> and Competition: a Meta-analysis**  
The study conducts a factorial meta-analysis aiming to synthesize the effects of elevated CO<sub>2</sub>, competition, and their interaction on aboveground biomass across 88 case studies from 20 different articles. The main effects of elevated CO<sub>2</sub>, competition and their interactions are compared, and the heterogeneities between studies are analyzed.
- 2013.07-2014.06 **An Application of Multi-Attribute Decision Making for Evaluating Industrial Heritage in Nananzui and Guibei Area of Wuhan**  
The study analyzes 29 MADM methods and sets up guidelines for method selection. It builds the industrial heritage evaluation model and assesses the industrial heritage in the area with the MAVT, ELECTRE III, PROMETHEE I and PROMETHEE II methods. A comprehensive evaluation of this area is proposed based on the results of four methods and sensitivity analysis.
- 2012.09-2013.01 **Conceptual Master Plan of the 10th China (Wuhan) International Garden Expo**  
The study assesses the ecological sensitivity of the site to decide landuse form. It explores the ecological rehabilitation method of landfills, constructs transportation landscape infrastructure system to solve the traffic problems, and researches the sustainable way of the garden expo.
- 2011.03-2011.06 **Yangchun and East Lake Connection Park Planning and Design of the Water Network Connection Project of East Lake in Wuhan City**  
The study explores the application of the stormwater and wastewater management in the lake protection planning of wuhan city, and the ecological rehabilitation methods for lakes and landfills.

## Teaching Experiences

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- Fall 2020 GEOG 585 Quantitative Methods in Geographic Research  
Teaching Associate, San Diego State University
- Fall 2020 GEOG 104 Geographic Information Sciences and Spatial Reasoning  
Teaching Associate, San Diego State University
- Spring 2019 GEOG 385 Spatial Data Analysis  
Teaching Associate, San Diego State University
- Fall 2018 GEOG 385 Spatial Data Analysis  
Teaching Associate, San Diego State University

## Skills

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R, Python, Matlab, C/C++, ArcGIS, ERDAS