

Hanshi Chen

Ph. D. student, University Program in Ecology (UPE), Duke University
Levine Science Research Center (LSRC), A314, Durham, NC 27708

A. Professional Preparation

Institution	Location	Major	Degree & Year
Duke University	Durham, NC	Ecology	2024.8-present
Pennsylvania State Univ	University Park, PA	Ecology	2023.8-2024.7
National Taiwan Univ	Taipei, Taiwan	Environ. Plan. Manag.	MEng 2021
Fujian Normal Univ	Fujian, China	Geogr. Inf. Sci.	BSc 2019

B. Publications

Journal Articles

- Chen, H. S., Li, X., Wei, Y., Qiu, T. Climate and habitat change jointly determine the spatial variations of spring and fall phenology across the United States. (***Draft available upon request***)
- Wang, Q. C., Lu, T., Chen, H. S., Wang, L., Jia, J., Chen, W. Q. (2024). Tracing environmental footprint of copper wire rod manufacturing in China. ***Resources, Conservation and Recycling***, 204, 107503. <https://doi.org/10.1016/j.resconrec.2024.107503>
- Chen, H. S., Lin, Y. C., Chiueh, P. T. (2023). Nexus of Ecosystem Service-Human Health-Natural Resources: Nature-Based Solutions (NBS) for Urban PM_{2.5} Pollution. ***Sustainable Cities and Society***, 91, 104441. <https://doi.org/10.1016/j.scs.2023.104441>
- Chen, H. S., Tam, K. I., Zhao, Y. L., Yuan, L., Wang, W., Lin, M., Chiang, P. C. (2023). Development of Environmental Action Plans for Adaptation to Climate Change: A Perspective of Air Quality Management. ***Aerosol and Air Quality Research***, 23, 220377. <https://doi.org/10.4209/aaqr.220377>
- Chen, H. S., Lin, Y. C., Chiueh, P. T. (2022). High-resolution Spatial Analysis for the Air Quality Regulation Service from Urban Vegetation: A Case Study of Taipei City. ***Sustainable Cities and Society***, 83, 103976. <https://doi.org/10.1016/j.scs.2022.103976>
- Chen, H. S., Yu, M. (2020). Spatial Analysis of Food Deserts Based on GIS Technology: A Case Study of Fuzhou City. ***Journal of Fujian Normal University (Natural Science Edition)***, 36(3), 60-69. doi: 10.12046/j.issn.1000-5277.2020.03.008
- Chen, H. S., Lin, Y. C. (2020). Assessing the City Happiness and Sustainable Index (CHS) of Taichung City and Fuzhou City. ***Journal of Social and Regional Development***, 6(1), 1-42. doi: 10.29868/JSRD

Theses

- Master Thesis (MS.) (National Taiwan University)
Title: Nature-based Solutions for Urban Air Pollution Mitigation: A Case Study of Taipei City

C. Selected presentations

- Chen, H. S., Li, X., Wei, Y., Qiu, T., 2024. *Climate and habitat change jointly determine the spatial variations of spring and fall phenology across the United States*, 2024 ESA Annual Meeting, Aug. 7th, (oral talk at phenology session).
- Chen, H. S., Chiueh, P. T., 2020. *Integrating Air Quality Regulation Service on Urban Green Planning*, The 32nd Annual Meeting of the Chinese Institute of Environmental Engineering and

Academic Seminars, Nov. 28th, (poster).

D. Honors and Award

- Robert W. Graham Endowed Graduate Fellowships, Pennsylvania State University 2023-2025
- Scholarship of Carbon Emission Accounts & Datasets (CEADs) (2 teams/14 teams) 2022
- Sustainable Development Goals Academic Paper Awards (Master Thesis), TAISE (6/146) 2021
- NTU Postgraduate Scholarship, National Taiwan University 2019-2021
- Outstanding Assistant, NTU Carbon Cycle Research Center 2020
- Excellent Graduate, Fujian Normal University (5/43) 2019
- Academic Excellence Award (exchanged student), Feng Chia University (1/43) 2018
- First Prize Scholarship (exchanged student), Feng Chia University (1/43) 2017-2018
- Second-level Scholarship, Fujian Normal University (Top 10% of 43) 2015-2019
- Merit Student, Fujian Normal University (Top 10% of 43) 2015-2018

E. Project/Professional Experience

- UPE, Duke University 2024–present
 - Position: Ph.D. student
 - PI: Dr. Tong Qiu
 - My current work on the following research topic:
Using multi-source remote sensing datasets to quantify how environmental variables and functional traits affect vegetation phenology; Understanding the impacts of climate change and air pollution on urban phenology.
- IGDP in Ecology, Pennsylvania State University 2023–2024
 - Position: Ph.D. student
 - PI: Dr. Tong Qiu
 - My work on the following research topic:
Understanding how environmental factors influence land surface phenology changes. Combining multispectral and LiDAR remote sensing to quantify how habitat mitigates climate change impacts on vegetation phenology.
- Institute of Urban Environment, Chinese Academy of Sciences (IUE,CAS) 2021–2023
 - Position: Full-time Research Assistant
 - PI: Prof. Wei-Qiang Chen
 - My contribution to the following projects:
Understanding climate change impacts on carbon cycling and energy consumption. Quantifying carbon emissions of online food delivery services in cities; Using life-cycle analysis to generate insights for conservation planning and climate change mitigation and adaptation strategy.
- Graduate institute of environmental engineering, National Taiwan University 2020–2021
 - Position: Part-time Research Assistant
 - PI: Distinguished Prof. Pen-Chi Chiang
 - My contribution to the following projects:
Collecting country-level environmental action plans for climate change adaptation; Quantifying environmental impacts of water reclamation technologies for municipal wastewater by using a life cycle analysis.