Jiameng Lai

Environmental Postdoctoral Fellow
Harvard University Center for the Environment, Harvard University
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Education

Ph.D. in Soil and Crop Science, Cornell University 2020.09-2025.05

"Understanding terrestrial carbon-water exchanges through carbonyl sulfide (OCS) and carbon-13 isotope" My dissertation focuses on monitoring, quantifying and predicting terrestrial carbon-water fluxes (e.g., photosynthesis and evapotranspiration) and their functional relationships, using innovative tracers including OCS and ^{13}C isotope.

Advisor: Prof. Ying Sun; *Committee members*: Profs. Yiqi Luo, Peter Hess, Xiangtao Xu

M.S. in Cartography and Geographic Information Science, Nanjing University 2017.09-2020.07

"Attribution and prediction of spatio-temporal evolution of surface urban heat islands" My thesis focuses on analyzing the relative contributions of diverse climate, socioeconomic, and surface factors in driving the dynamics of surface urban heat islands across different scales from diurnal to decadal.

Advisor: Prof. Wenfeng Zhan

B.S. in Geographic Information Science, Nanjing University 2013.09-2017.07

"Identification of typical diurnal patterns for clear-sky climatology of surface urban heat islands" My thesis addresses one critical limitation of satellite remote sensing data—the trade-off between spatial and temporal resolutions, reconstructing the full diurnal continuous cycle of surface urban heat island.

Advisor: Prof. Wenfeng Zhan

Academic Appointments

Environmental Postdoctoral Fellow, Harvard University 2025.07-present

Host: Prof. Paul Moorcroft

Research Interests

Terrestrial carbon-water cycle; land surface modeling; remote sensing; urban sustainability

Particularly, my research aims to answer the following two questions:

[1] How to faithfully monitor, understand, and predict the response and feedback of terrestrial ecosystems to global environmental changes?

[2] How to assess and enhance sustainability in both natural and human-impacted ecosystems?

Awards

- MacDonald Musgrave Award, Cornell University ($2000) 2024
- Barbara McClintock Award, Cornell University ($1500) 2024
- Saltonstall fellowship, Cornell University ($185,000) 2020-2023
- National Scholarship, Nanjing University (Ranking: **1/300**, RMB 20,000) 2018

- First Grade Award, 5th Youth Scientist Forum of Earth Science (**only 1** in Geography field) 2018
- Pacemaker to Excellent Postgraduate Student, Nanjing University (**1 out of 100**) 2018
- First Prize of Graduate School Scholarship, Nanjing University (RMB 10,000) 2017; 2018
- Second Grade Award in 20th Forum of Science & Arts, Nanjing University 2017
- Excellent Student, Nanjing University (**3 out of 66)** 2015
- First Grade Award, Undergraduate Student Innovation Competition in Surveying and Mapping Using Geographic Information Software, Jiangsu Province 2015
- Excellent Report on Social Practices, Nanjing University (only **10** reports) 2015
- National Encourage Scholarship, Nanjing University (RMB 5,000) 2014; 2015; 2016

Grant

Harvard Environmental Fellow, "Understanding the spatio-temporal patterns of Amazon productivity and its environmental drivers", funded by *Harvard University Center for the Environment (HUCE)*, $185,000 2025-present
Host: Prof. Paul Moorcroft.

PI, "Attribution and prediction of spatio-temporal evolution of surface urban heat islands", funded by *Jiangsu Provincial Education Department, China*, RMB 15,000 2018-2019

Participant, "Collaborative Research: MRA: Harness the theoretical and data advances in solar-induced chlorophyll fluorescence to jointly partition ecosystem carbon and water fluxes", funded by *NSF-MSB*, $1.65M 2024/08-present
PI: Prof. Ying Sun; Co-PI: Profs. Yiqi Luo, Lixin Wang.

Participant, "A High-Resolution Carbon Monitoring System for East Africa: Unifying Top-Down Atmospheric Inversion and Bottom-Up Next-Generation Vegetation-Soil Models and Observations", funded by *NASA-CMS*, $997,935 2021-present
PI: Prof. Ying Sun; Co-PI: Profs. Johannes Lehmann, Dominic Woolf, Junjie Liu.

Publications (33 published; total citation = 1602, last access 07/03/2025)

Google Scholar (* denotes corresponding author)

In progress

1. **Lai, J.**, Keeling, R., Sun, W., Wang, L., Luo, Y., Gu, L., Gregory, L., Miller, D. and Sun, Y.*, CO_2 Outweighs Vapor Pressure Deficit in Controlling Global Ecosystem Water Use Efficiency. [Submitted to *Science*]
2. **Lai, J.**, et al., and Sun, Y.*, Mesophyll diffusion dominates the long-term increase in Carbon-13 discrimination over global natural ecosystems and has implications for water use efficiency. [Advanced draft finished. Target journal: *Nature Plant*]
3. **Lai, J.**, Luo, Z., et al., and Sun, Y.*, Assimilating MODIS LAI and SMAP soil moisture to monitor carbon exchange in Africa. [In development].

Published

1. **Lai, J.**, Kooijmans, L. M. J., Sun, W., Lombardozzi, D., Campbell, J. E., Gu, L., Luo, Y., Kuai, L. and Sun, Y*, 2024. Terrestrial Photosynthesis Inferred from Plant Carbonyl Sulfide Uptake. *Nature*, https://doi.org/10.1038/s41586-024-08050-3
2. **Lai, J.**, Li, Y., Chen, J., Niu, G., Lin, P., Li, Q., Wang, L., Han, J., Luo, Z., and Sun, Y.*, 2022. Massive crop expansion threatens agricultural and water sustainability in northwestern China. *Environmental Research Letters*, 17, 034003.
3. **Lai, J.**, Zhan, W.*, Quan, J., Liu, Z., Li, L., Huang, F., Hong, F., and Liao, W., 2021. Reconciling Debates on Controls of Surface Urban Heat Island: The Effect of Scale and Sampling. *Geophysical Research Letters*, 48, e2021GL094485.
4. **Lai, J.**, Zhan, W.*, Voogt, J., Quan, J., Huang, F., Zhou, J., Bechtel, B., Hu, L., Wang, K., Cao, C., and Lee, X., 2021. Meteorological controls on daily variations of nighttime surface urban heat islands. *Remote Sensing of Environment*, 253, 112198.
5. **Lai, J.**, Zhan, W.*, Quan, J., Bechtel, B., Wang, K., Zhou, J., Huang, F., Chakraborty, T., Liu, Z., and Lee, X., 2021. Statistical simulation of next-day nighttime surface urban heat islands. *ISPRS Journal of Photogrammetry and Remote Sensing*, 176, 182-195.
6. **Lai, J.**, Zhan, W.*, Huang, F., Voogt, J., Bechtel, B., Allen, M., Peng, S., Hong, F., Liu, Y., and Du, P.*, 2018. Identification of typical diurnal patterns for clear-sky climatology of surface urban heat islands. *Remote Sensing of Environment*, 217, 203-220.
7. **Lai, J.**, Zhan, W.*, Huang, F., Quan, J., Hu, L., Gao, L., and Ju, W., 2018. Does quality control matter? Surface urban heat island intensity variations estimated by satellite-derived land surface temperature products. *ISPRS Journal of Photogrammetry and Remote Sensing*, 139, 212-227.
8. Liu, Z., **Lai, J.**, Zhan, W.*, Bechtel, B., Voogt, J., Quan, J., Hu, L., Fu, P., Huang, F., Li, L., and Guo, Z., 2022. Urban heat islands significantly reduced by COVID-19 lockdown. *Geophysical Research Letters*, e2021GL096842. [***I contributed equally with Liu, Z.***]
9. Huang, F., Jiang, S., Zhan, W. *, Bechtel, B., Liu, Z., Demuzere, M., Huang, Y., Xu, Y., Ma, L., Xia, W., Quan, J., Jiang, L., **Lai, J.**, Wang, C., Kong, F., Du, H., Miao, S., Chen, Y., and Chen, J., 2023. Mapping local climate zones for cities: A large review. *Remote Sensing of Environment*, 292, 113573. [**ESI highly cited paper**]
10. Lombardozzi, D. L., Wieder, W. R., Keppel-Aleks, G., **Lai, J.**, Luo, Z., Sun, Y., Simpson, I. R., Lawrence, D. M., Bonan, G. B., Lin, X. and Koven, C. D. 2025. Agricultural fertilization significantly enhances amplitude of land-atmosphere CO2 exchange. *Nature Communications*. 16(1), 1742.
11. Sun, Y.*, Gu, L., Wen, J., van Der Tol, C., Porcar-Castell, A., Joiner, J., Chang, C. Y., Magney, T., Wang, L., Hu, L., Rascher, U., Zarco-Tejada, P., Barrett, C. B., **Lai, J.**, Han, J., and Luo, Z. 2023. From remotely sensed solar‐induced chlorophyll fluorescence to ecosystem structure, function, and service: Part I—Harnessing theory. *Global change biology*, 29(11), 2926-52.
12. Sun, Y.*, Wen, J., Gu, L. Joiner, J., Chang, C. Y., van der Tol, C., Porcar-Castell, A., Magney, T., Wang, L., Hu, L., Rascher, U., Zarco-Tejada, P., Barrett, C. B., **Lai, J.**, Han, J., and Luo, Z. 2023.

From remotely sensed solar‐induced chlorophyll fluorescence to ecosystem structure, function, and service: Part II—Harnessing data. *Global change biology*, 29(11), 2893-925.

13. Li, L., Zhan, W. *, Ju, W., Peñuelas, J., Zhu, Z., Peng, S., Zhu, X., Liu, Z., Zhou, Y., Li, J., **Lai, J.**, Huang, F., Yin, G., Fu, Y., Li, M., and Yu, C., 2023. Competition between biogeochemical drivers and land-cover changes determines urban greening or browning. *Remote Sensing of Environment*, 287, 113481.
14. Liu, Z., Zhan, W.*, **Lai, J.**, Bechtel, B., Lee, X., Hong, F., Li, L., Huang, F., and Li, J., 2022. Taxonomy of seasonal and diurnal clear-sky climatology of surface urban heat island dynamics across global cities. *ISPRS Journal of Photogrammetry and Remote Sensing*, 187, 14-33.
15. Miao, S., Zhan, W. *, **Lai, J.**, Li, L., Du, H., Wang, C., Wang, C., Li, J., Huang, F., Liu, Z., and Dong, P., 2022. Heat wave-induced augmentation of surface urban heat islands strongly regulated by rural background. *Sustainable Cities and Society*, 82, 103874.
16. Li, L., Zhan, W.*, Du, H., **Lai, J.**, Wang, C., Fu, H., Huang, F., Liu, Z., Wang, C., Li, J., Jiang, L., and Miao, S., 2022. Long-Term and Fine-Scale Surface Urban Heat Island Dynamics Revealed by Landsat Data Since the 1980s: A Comparison of Four Megacities in China. *Journal of Geophysical Research: Atmospheres*, 127(5), e2021JD035598.
17. She, Y., Liu, Z., Zhan, W. *, **Lai, J.**, and Huang, F., 2022. Strong regulation of daily variations in nighttime surface urban heat islands by meteorological variables across global cities. *Environmental Research Letters*, 17, 1.
18. Liu, Z., Zhan, W. *, Bechtel, B., Voogt, J., **Lai, J.**, Chakraborty, T., Wang, Z. H., Li, M., Huang, F., and Lee, X.. 2022. Surface warming in global cities is substantially more rapid than in rural background areas. *Communications Earth & Environment*, 3(1), 219.
19. Zhan, W., Liu, Z. *, Bechtel, B., Li, J., **Lai, J.**, Fu, H., Li, L., Huang, F., Wang, C., and Chen, Y., 2022. Urban‐Rural Gradient in Urban Heat Island Variations Responsive to Large-Scale Human Activity Changes During Chinese New Year Holiday. *Geophysical Research Letters*, 49(21), e2022GL100689.
20. Chen, J., Zhan, W.*, Du, P., Li, L., Li, J., Liu, Z., Huang, F., **Lai, J.**, and Xia, J., 2022. Seasonally disparate responses of surface thermal environment to 2D/3D urban morphology. *Building and Environment*, 214, 108928.
21. Hong, F., Zhan, W.*, Göttsche, F. M., **Lai, J.**, Liu, Z., Hu, L., Fu, P., Huang, F., Li, J., Li, H., and Wu, H., 2021. A simple yet robust framework to estimate accurate daily mean land surface temperature from thermal observations of tandem polar orbiters. *Remote Sensing of Environment*, 264, 112612.
22. Li. J., Zhan, W.*, Hong, F., **Lai, J.**, Dong, P., Liu, Z., Wang, C., Huang, F., Li, L., Wang, C., Fu, Y., and Miao, S., 2021. Similarities and disparities in urban local heat islands responsive to regular-, stable-, and counter-urbanization: A case study of Guangzhou, China. *Building and Environment*, 199, 107935.
23. Du, H., Zhan, W.*, Liu, Z., Li, J., Li, L., **Lai, J.**, Miao, S., Huang, F., Wang, C., Wang, C., Fu, H., Jiang, L., Hong, F., and Jiang, S., 2021. Simultaneous investigation of surface and canopy urban heat

islands over global cities. *ISPRS Journal of Photogrammetry and Remote Sensing*, 181, 67-83.

24. Jiang, L., Zhan, W.*, Hu, L., Huang, F., Hong, F., Liu, Z., **Lai, J.**, and Wang, C., 2021. Assessment of different kernel-driven models for daytime urban thermal radiation directionality simulation. *Remote Sensing of Environment*, 263, 112562.
25. Chen, J., Zhan, W., Jin, S.*, Han, W., Du, P., Xia, J., **Lai, J.**, Li, J., Liu, Z., Li, L., Huang, F., and Ding, H., 2021. Separate and combined impacts of building and tree on urban thermal environment from two-and three-dimensional perspectives. *Building and Environment*, 194, 107650.
26. Dong, P., Gao, L., Zhan, W.*, Liu, Z., Li, J., **Lai, J.**, Li, H., Huang, F., Tamang, S., and Zhao, L., 2020. Global comparison of diverse scaling factors and regression models for downscaling Landsat-8 thermal data. *ISPRS Journal of Photogrammetry and Remote Sensing*, 169, 44-56.
27. Jiang, S., Zhan, W.*, Yang, J., Liu, Z., Huang, F., **Lai, J.**, Li, J., Hong, F., Huang, Y., Chen, J., and Lee, X., 2020. Urban heat island studies based on local climate zones: A systematic overview. *Acta Geogr. Sin.* 75(9), 1860-78.
28. Wang, C., Zhan, W. *, Liu, Z., Li, J., Li, L., Fu, P., Huang, F., **Lai, J.**, Chen, J., Hong, F., and Jiang, S., 2020. Satellite-based mapping of the Universal Thermal Climate Index over the Yangtze River Delta urban agglomeration. *Journal of Cleaner Production*, 277, 123830.
29. Huang, F., Zhan, W.*, Wang, Z., Voogt, J., Hu, L., Quan, J., Liu, C., Zhang, N., and **Lai, J.**, 2020. Satellite identification of atmospheric-surface-subsurface urban heat islands under clear sky. *Remote Sensing of Environment*, 250, 112039.
30. Liu, Z., Zhan, W.*, **Lai, J.**, Hong, F., Quan, J., Bechtel, B., Huang, F., and Zou, Z., 2019. Balancing prediction accuracy and generalization ability: A hybrid framework for modelling the annual dynamics of satellite-derived land surface temperatures. *ISPRS Journal of Photogrammetry and Remote Sensing*, 151, 189-206.
31. Hong, F., Zhan, W.*, Göttsche, F.M., Liu, Z., Zhou, J., Huang, F., **Lai, J.**, and Li, M., 2018. Comprehensive assessment of four-parameter diurnal land surface temperature cycle models under clear-sky. *ISPRS Journal of Photogrammetry and Remote Sensing*, 142, 190-204.
32. Zou, Z., Zhan, W.*, Liu, Z., Bechtel, B., Gao, L., Hong, F., Huang, F., **Lai, J.**, 2018. Enhanced modeling of annual temperature cycles with temporally discrete remotely sensed thermal observations. *Remote Sensing*, 10(4), 650.
33. Huang, F., Zhan, W.*, Wang, Z., Wang, K., Chen, J.M., Liu, Y., **Lai, J.**, and Ju, W., 2017. Positive or negative? Urbanization‐induced variations in diurnal skin-surface temperature range detected using satellite data. *Journal of Geophysical Research: Atmospheres*, 122(24), 13-229.

Invited Talks

1. "Terrestrial photosynthesis inferred from innovative tracers". 8th Training course *New Advances in Land Carbon Cycle Modeling*, online, 2025.
2. "Tracking terrestrial carbon and water exchange using innovative tracers". *Nanjing University*, China, 2024.

3. "Tracking terrestrial carbon and water exchange using innovative tracers". *Peking University*, online, 2024.
4. "Terrestrial Photosynthesis Inferred from Plant Carbonyl Sulfide Uptake". *GeoInsider*, online, 2024.
5. "Terrestrial Photosynthesis Inferred from Plant Carbonyl Sulfide Uptake". *University of California, Berkeley Journal Club*, online, 2024.
6. "Tracking terrestrial carbon and water exchange using innovative tracers". *Westlake University*, China, 2024.
7. "Multi-scale temporal revolution of urban heat island and the associated controls". *Remote Sensing Discussion Group*, Cornell University, USA, 2022.
8. "Impact of mesophyll diffusion on carbonyl sulfide biosphere exchange". *Community Earth System Model (CESM) Discussion Group*, Cornell University, USA, 2022.
9. "Massive Crop Expansion Threatens Food and Water Sustainability in Arid Northwestern China". *Fall 2021 School of Integrative Plant Science (SIPS) Weekly Section Seminars*, Cornell University, USA, 2021.
10. "Multi-scale temporal revolution of urban heat island and the associated controls". *Yale-NUIST Center on Atmospheric Environment*, China, 2021.
11. * "Experience sharing in learning and conducting research". *Special Seminar of Ten-thousand Student Program of Academic Winter Camp in Jiangsu Province*, Nanjing University, China, 2019.
12. "Meteorological controls on daily variations of nighttime surface urban heat islands under clear-sky". *University of Electronic Science and Technology of China*, China, 2018.
13. "Experience sharing in writing scientific papers". *Nanjing University*, China, 2018.

* I was selected as the only student to give this speech on behalf of Nanjing University.

Conference/Workshop Presentations

Oral presentations

1. **Lai, J.**, Keeling, R., Wang, L., Luo, Y., Sun, W., Miller, D., Sun, Y., CO2 Fertilization continues to enhance plant WUE despite rising vapor pressure deficit. *American Geophysical Union*, Washington D.C., USA, 2024.
2. **Lai, J.**, Keeling, R., Lombardozzi, D., Zuidema, P., Gu, L., Sun, Y., Mesophyll largely contributes to the historical increase in isotope discrimination of C3 plants and implications for water use efficiency. *2024 Community Earth System Model Workshop*, online, 2024.
3. **Lai, J.**, Keeling, R., Lombardozzi, D., Zuidema, P., Gu, L., Sun, Y., Impacts of mesophyll diffusion on the long-term increase in global Carbon-13 discrimination and water use efficiency. *2nd Annual Dynamic Global Vegetation Modeling Conference*, Woods Hole, USA, 2024. [oral & poster]
4. **Lai, J.**, Keeling, R., Zuidema, P., Sun, Y., Impacts of mesophyll diffusion on the long-term increase in global Carbon-13 discrimination and water use efficiency. *American Geophysical Union*, San Francisco, USA, 2023.

5. **Lai, J.**, Kooijmans, L., Lombardozzi, D., Sun, W., Sun, Y., Impact of mesophyll diffusion on carbonyl sulfide (OCS) fluxes in global terrestrial ecosystems, *iLEAPS – OzFlux Joint Conference*, Auckland, New Zealand, online, 2023.
6. **Lai, J.**, Kooijmans, L., Lombardozzi, D., Sun, W., Sun, Y., Impact of mesophyll diffusion on carbonyl sulfide (OCS) fluxes in global terrestrial ecosystems, *American Geophysical Union*, Chicago, USA, 2022.
7. **Lai, J.**, Li, Y., Chen, J., Niu, G.Y., Lin, P., Li, Q., Wang, L., Han, J., Luo, Z., Sun, Y., Massive Crop Expansion Threatens Agriculture and Water Sustainability in Northwest China, *American Geophysical Union*, New Orleans, USA, 2021.
8. **Lai, J.**, Zhan, W., Reconciling debates in controls of urban heat islands: the effect of scaling and sampling. *American Geophysical Union*, online, 2020.
9. **Lai, J.**, Zhan, W., Jiang, S., Forecasting of the nighttime surface urban heat islands under clear-sky. *Joint Urban Remote Sensing Event*, Vannes, France, 2019. [oral & poster]
10. **Lai, J.**, Zhan, W., Attribution and prediction of spatio-temporal evolution of surface urban heat islands. *3rd Seminar on Thermal Infrared Quantitative Remote Sensing*, Qingdao, China, 2019.
11. **Lai, J.**, Zhan, W., Synoptic controls on daily variations of nighttime urban heat islands under clear-sky. *5th Youth Scientist Forum of Earth Science*, Nanjing, China, 2018.
12. **Lai, J.**, Zhan, W., Huang, F., Voogt, J., Bechtel, B., Allen, M., Peng, S., Hong, F., Liu, Y., Du, P. Identification of typical diurnal patterns for clear-sky climatology of surface urban heat islands. *1st International Conference on Urban Informatics*, Hong Kong, China, 2017.
13. **Lai, J.**, Zhan, W., Huang, F., Quan, J., Hu, L., Gao, L., Ju, W. Does quality control matter? Surface urban heat island intensity variations estimated by satellite-derived land surface temperature products. *ISPRS Geospatial Week*, Wuhan, China, 2017.

Poster presentations

14. **Lai, J.**, Keeling, R., Lombardozzi, D., Zuidema, P., Gu, L., Sun, Y., Mesophyll largely contributes to the historical increase in isotope discrimination of C3 plants and implications for water use efficiency. *European Geosciences Union*, Vienna, Austria, 2024.
15. **Lai, J.**, Zhan, W., Systematic investigation of synoptic control of nighttime surface urban heat islands over Chinese cities. *American Geophysical Union*, Washington D.C., USA, 2018.

Media Release and Peer Evaluation

- Media release on my research article "Terrestrial Photosynthesis Inferred from Plant Carbonyl Sulfide Uptake", Cornell Chronicle; Phys.org; Oak Ridge National Laboratory; Newswise; etc.
- Media release on my research article "Urban Heat Islands Significantly Reduced by COVID-19 Lockdown", Inside Climate News.
- My research article "Identification of typical diurnal patterns for clear-sky climatology of surface urban heat islands" was commented as: '*The temperature curves of Lai et al. (2018a)* ***exemplify a half-century of progress*** *toward time-continuous interpretations of SUHI magnitude at the diurnal*

scale' in Stewart, I. D., et al. 2021. Time evolution of the surface urban heat island. *Earth's Future*, 9(10), e2021EF002178.

Professional Services

- **Convener**, European Geosciences Union (EGU) BG 3.34 Trend and inter-annual variability of terrestrial photosynthesis, evapotranspiration, and water use efficiency: from theory and data to Earth system modeling [later merged with Session BG 3.39 Emerging constraints of photosynthesis (including chlorophyll fluorescence), respiration and transpiration at ecosystem to global scales, and my role became **co-convener**]
- **Membership**, American Geophysical Union (AGU), 2020-present

Journal Reviewer

- Remote Sensing of Environment
- Building and Environment
- Earth System Science Data
- Science of the Total Environment
- Journal of Urban Management
- Earth's Future
- Journal of Arid Environments
- Global Change Biology
- Communications Earth & Environment
- Sustainable Cities and Society
- International Journal of Digital Earth
- Urban Climate
- Frontiers in Plant Science

Technical Proficiencies & Interdisciplinary Skills

Integration of multi-disciplinary approaches: Combining plant physiology, atmospheric sciences, land surface modeling, remote sensing, and isotope techniques to study terrestrial carbon-water exchanges

Land surface modeling: Proficient with Community Earth System Model (CESM) Community Land Model (CLM)

Remote sensing: Processing and analysis of satellite data (thermal, optical, and gravity remote sensing)

Data assimilation: Proficient with CLM5-DART (CLM5 with Data Assimilation Research Testbed)

Field Work and Workshops Attended

- 4th Annual Land Data Assimilation Community Virtual Workshop, online 2024
- Field work, Musgrave research farm, NY, USA 2021-2023 summer
- Community Terrestrial Systems Model (CTSM) mini-tutorial, online 2022
- Community Earth System Model (CESM) tutorial, Boulder, CO, USA 2022
- Nature Research Academies Author Training, Nanjing, China 2018

Teaching and Mentoring Experience

Teaching Assistant, Introduction to Mapping and Spatial Analysis with GIS (50-student undergraduate course), Cornell University Fall 2024

Role: Provided hands-on support during lab sessions; graded assignments; created online resources addressing common challenges and misconceptions.

Mentoring

Yihang She, undergraduate student, Nanjing University 2019

Role: Helped supervise research on the meteorological controls of daily variations in surface urban heat islands over global cities. A relevant paper (he is the first author) was published in *Environmental Research Letters*.