Curriculum Vitae

Yaqian He

Department of Geosciences

University of Arkansas-Fayetteville

Fayetteville, AR 72701

Email: yaqianh@uark.edu

Website: https://yaqianhe.github.io/

ACADEMIC APPOINTMENTS

08/2024-	**Assistant Professor** in the Department of Geosciences, University of Arkansas-Fayetteville, Fayetteville, AR
08/2020- 08/2024	**Assistant Professor** in the Department of Geography, University of Central Arkansas, Conway, AR
09/2018- 07/2020	**Postdoc Research Fellow** in the Department of Geography, Dartmouth College, Hanover, NH

EDUCATION

2013-2018	**Ph.D.** in Geography in the Department of Geology and Geography, West Virginia University, Morgantown, WV.
2010-2013	**M.S.** in Cartography and GIS in the Department of Geography, Beijing Normal University, China.
2006-2010	**B.E.** in Surveying Engineering in the Dept. of Environment Science and Spatial Informatics, China Univ. of Mining and Tech., China.

RESEARCH INTERESTS

Biosphere-Atmosphere Interaction

Climate Change, Extremes, and Modeling

Land Cover and Land Use

Agricultural Ecosystem

Remote Sensing and UAVs

Geo-Artificial Intelligence

Big Data Analytics and GIS

REFEREED PUBLICATIONS (underscore denotes advised students)

Submitted/Under review/In preparation

8. Li, S., Yang, D., **He, Y.**, Parazoo, N., and Liu, W., Land cover change-climate interactions amplified the diminishment of spring ecosystem productivity in the Arctic-Boreal region. *revising*

7. Faith, V., **He, Y.**, Pearson, B., Noyes, R., Tullis, J.A., Moreno-Martínez, Á., Izquierdo-Verdiguier, E., and Clinton, N., Characterizing spatiotemporal patterns of soybean phenology in the Arkansas Delta region using multi-source remote sensing data from 2002 to 2020. *under review*

6. **He, Y.**, Huang, M., Shahpar, S., Wei, G., and Liu, X., Leveraging satellite data for near real-time prediction of extreme precipitation in "Data-Driven Earth Observation for Disaster Management: From

Theory to Practical Applications". edited by Huang, X., Wang, S., Kalogeropoulos, K., and Tsatsaris, A. *Submitted.*

5. **He, Y.**, Yang, D., Peter, B., Huang, X., and Vire, F., Integration of remote sensing, big data, and GeoAI in "Remote Sensing, Big Data, and GeoAI: Exploring Applications with Geospatial Insights" edited by Bunting, E., Southworth, J., Gibbes, C., and Herrero, H. *Submitted.*

4. He, Q., Xu, Y., **He, Y.** and Connolly, M., Agriculture and conflict and cooperation over international river basins: An analysis based on remotely sensed data. *second revising*

3. **He, Y.**, and Yang, D., Enhanced extreme precipitation simulation in China using NCAR CESM based on a realistic remotely-sensed time series of annual land cover and land use data from 1982 to 20213. *Second revising.*

2. **He, Y.**, Yang, D. and Yang, A., Land cover and land use change impacts on temperature extremes in China in "Ecosystem Services" edited by Mutanga, Q, and Pandey, R. *Submitted*

1. Maxwell, A., Ramezan, C. and **He, Y.**, Supervised Learning in Remote Sensing and Geospatial Science: Theory and Practice (book). *To be submitted to ELSEVIER by January 1st, 2025. In preparation*

Published

2024

38. Im, A., Lee, E. and **He, Y.**, 2024. Detecting land cover and land use transitions and the associated temperature changes in the East Asian monsoon region. *The Geographical Journal*, p.e12590.

37. Tang, Q., Zhao, Y., **He, Y.**, Yu, Q. and Liang, T., 2024. Analysis of Aerosol Types and Vertical Distribution in Seven Typical Cities in East Asia. *Atmosphere*, 15(2), p.195.

2023

36. **He, Y.**, Connolly, M.H., Xu, R., Huang, X., Wang, Z., Filares-Arreguin, M. and Rhodes, C., 2023a: Irrigation-climate interactions impact on irrigated soybean yields in the Arkansas Delta. *Progress in Physical Geography: Earth and Environment,* p.03091333231169443.

35. Huang, X., Yang, D., **He, Y.**, Nelson, P., Low, R., McBride, S., Mitchell, J. and Guarraia, M., 2023. Land cover mapping via crowdsourced multi-directional views: The more directional views, the better. *International Journal of Applied Earth Observation and Geoinformation*, 122, p.103382.

34. Tay, W. and **He, Y.**, 2023. Detecting land cover and land use change and its impact on biomass carbon emission from 2001 to 2019 in Arkansas, USA. *Biogeochemistry*, pp.1-14.

33. Fang, F., Greenlee, A.J., **He, Y.** and Eutsler, E., 2023. Evaluating the quality of street trees in Washington, DC: Implications for environmental justice. *Urban Forestry & Urban Greening*, 85, p.127947.

32. **He, Y.**, Seminara, P., Huang, X., Yang, D., Fang, F. and Song, C., 2023b. Geospatial modeling of health, socioeconomic, demographic, and environmental factors with COVID-19 incidence rate in Arkansas, US. *ISPRS Int. J. Geo-Inf*, 12(2), 45.

2022

31. Wang, P., Tang, Q., Zhu, Y., Zheng, K., Liang, T., Yu, Q. and **He, Y.**, 2022. Validation and Analysis of MAIAC AOD Aerosol Products in East Asia from 2011 to 2020. *Remote Sensing*, 14(22), p.5735.

30. Wang, P., Tang, Q., Zhu, Y., **He, Y.**, Yu, Q., Liang, T. and Zheng, K., 2022. Spatial-temporal variation of AOD based on MAIAC AOD in East Asia from 2011 to 2020. *Atmosphere*, 13(12).

29. **He, Y.**, Chipman, J., Siegert, N. and Mankin, J.S., 2022a. Rapid land cover and land use change in the Indo-Malaysian region over the last 34 years based on AVHRR NDVI data. *Annals of the American Association of Geographers*, 112(8), pp.2131-2151.

28. He, Q., Meng, Q., Flatley, W. and **He, Y.**, 2022. Examining the effects of agricultural aid on forests in Sub-Saharan Africa: A causal analysis based on remotely sensed data of Sierra Leone. Land, 11, 668.

27. Yadav, S., Lee, E. and **He, Y.**, 2022. Positive associations of vegetation on temperature over the Alpine Grasslands in the Western Tibetan Plateau during May. Earth Interactions.

26. **He, Y.+**, <u>Oh, J.</u>+, Lee, E. and Kim, J., 2022b. Land cover and land use mapping of the East Asian Summer Monsoon region from 1982 to 2015. Land, 11, 391. ([+]contribute equally)

2021

25. Yang, A., Yang, J., Yang, D., Xu, R., **He, Y.**, Aragon, A. and Qiu, H., 2021. Human Mobility to Parks under the COVID-19 Pandemic and Wildfire Seasons in the Western and Central United States. *GeoHealth*, p.e2021GH000494.

24. **He, Y**[+]., Xu, R[+]., Prior, S.A., Yang, D., Yang, A. and Chen, J., 2021. Satellite-detected ammonia changes in the United States: natural or anthropogenic impacts. *Science of The Total Environment*, p.147899. ([+]contribute equally)

23. Liu, J., Shen, W. and **He, Y**[*]., 2021. Effects of Cropland Expansion on Temperature Extremes in Western India from 1982 to 2015. *Land*, *10* (5), p.489. ([*]corresponding author)

22. You, G., Liu, B., Zou, C., Li, H., McKenzie, S., **He, Y.**, Gao, J., Jia, X., Arain, M.A., Wang, S. and Wang, Z., 2021. Sensitivity of vegetation dynamics to climate variability in a forest-steppe transition ecozone, north-eastern Inner Mongolia, China. *Ecological Indicators*, *120*, p.106833.

2020

21. **He, Y.**, Lee, E. and Mankin, J. S., 2020. Seasonal tropospheric cooling in Northeast China associated with cropland expansion. *Environmental Research Letters*, *15*, 034032.

20. Li, Y., Chen, Y., Wang, F., **He, Y.** and Li, Z., 2020. Evaluation and projection of snowfall changes in High Mountain Asia based on NASA's NEX-GDDP high-resolution daily downscaled dataset. *Environmental Research Letters*, *15*(10), p.104040.

19. You, G., Arain, M.A., Wang, S., McKenzie, S., Xu, B., **He, Y.**, Wu, D., Lin, N., Gao, J. and Jia, X., 2020. Inter-annual Climate Variability and Vegetation Dynamic in the Upper Amur (Heilongjiang) River Basin in Northeast Asia. *Environmental Research Communications*, *2* (6), p.061003.

2019

18. Ji, X., Li, X., **He, Y**[*]. and Liu, X., 2019. A simple method to improve estimate of county-level economic in China by using nighttime light data and GDP growth rate. *ISPRS International Journal of Geo-Information, 8(9),* pp. 419. ([*]corresponding author)

17. Song, C[+]., **He, Y**[+]., Bo, Y., Wang, J., Ren, Z., Guo, J. and Yang, H., 2019. Disease relative risk downscaling model to localize various epidemiologic indicators for mapping hand, foot, and mouth disease over China. *Stochastic Environmental Research and Risk Assessment,* pp. 1-19. ([+]contribute equally)

16. Gaertner, B.A., Zegre, N., Warner, T., Fernandez, R., **He, Y.** and Merriam, E.R., 2019. Climate, forest growing season, and evapotranspiration changes in the central Appalachian Mountains, USA. *Science of The Total Environment*, *650*, pp.1371-1381.

2018

15. **He, Y.**, Warner, T., McNeil, B. and Lee, E., 2018. Reducing uncertainties in applying remotely sensed land use and land cover maps in land-atmosphere interaction: identifying change in space and time. *Remote Sensing*, *10*(4), pp.506.

14. Lee, E. and **He, Y.**, 2018. Could the enhanced forests reduce summer warming in the southern China?. *Journal of Climate Research*, *13*(4), pp.345-359.

13. Lee, E., **He, Y.** and Park, Y-L., 2018. Effects of climate change on the phenology of Osmia cornifrons: implications for population management. *Climatic Change*, *150*(3-4), pp.305-317.

12. Song, C., **He, Y.**, Bo, Y., Wang, J., Ren, Z. and Yang, H., 2018. Risk assessment and mapping of hand, foot, and mouth disease at the county level in mainland China using spatiotemporal zero-inflated Bayesian hierarchical models. *International Journal of Environmental Research and Public Health*, *15*(7), pp.1476.

2017

11. **He, Y.**, Lee, E. and Warner, T.A., 2017. A time series of annual land use and land cover maps of China from 1982 to 2013 generated using AVHRR GIMMS NDVI3g data. *Remote Sensing of Environment*, *199*, pp.201-217.

10. Lee, E., **He, Y.** and Shanmugasundaram, J., 2017. Geography of Monsoons. In Oxford Bibliographies in Geography. Ed. Barney Warf. *New York: Oxford University Press*.

2016

9. **He, Y.** and Lee, E., 2016. Empirical relationships of sea surface temperature and vegetation activity with summer rainfall variability over the Sahel. *Earth Interactions*, *20*(6), pp.1-18.

8. **He, Y.**, Bo, Y., Chai, L., Liu, X. and Li, A., 2016. Linking in situ LAI and fine resolution remote sensing data to map reference LAI over cropland and grassland using geostatistical regression method. *International Journal of Applied Earth Observation and Geoinformation*, *50*, pp.26-38.

7. Ahn, J.J., Son, Y., **He, Y.**, Lee, E. and Park, Y.L., 2016. Effects of temperature on development and voltinism of Chaetodactylus krombeini (Acari: Chaetodactylidae): implications for climate change impacts. *PloS One*, *11*(8), pp.e0161319.

2015

6. **He, Y.**, Bo, Y., de Jong, R., Li, A., Zhu, Y. and Cheng, J., 2015. Comparison of vegetation phenological metrics extracted from GIMMS NDVIg and MERIS MTCI data sets over China. *International Journal of Remote Sensing*, *36*(1), pp.300-317.

5. Lee, E., **He, Y.**, Zhou, M. and Liang, J., 2015. Potential feedback of recent vegetation changes on summer rainfall in the Sahel. *Physical Geography*, *36*(6), pp.449-470.

4. Zhu, Y., Kang, E.L., Bo, Y., Tang, Q., Cheng, J. and **He, Y.**, 2015. A robust fixed rank kriging method for improving the spatial completeness and accuracy of satellite SST products. *IEEE Transactions on Geoscience and Remote Sensing*, *53*(9), pp.5021-5035.

3. Liu, X., Bo, Y., Zhang, J. and **He, Y.**, 2015. Classification of C3 and C4 vegetation types using MODIS and ETM+ blended high spatio-temporal resolution data. *Remote Sensing*, *7*(11), pp.15244-15268.

2. Zheng, L., Bo, Y. and **He, Y.**, 2015. Comparison of natural vegetation phenology developed from MODIS and CYCLOPES and GLASS LAI data product based on dynamical threshold method: a case study in three provinces of Northeast China. *Remote Sensing Technology and Application*, 30 (6), 1103-1112. (Chinese with English abstract)

2013

1. Li, A., Bo, Y., Zhu, Y., Guo, P., Bi, J. and **He, Y.**, 2013. Blending multi-resolution satellite sea surface temperature (SST) products using Bayesian maximum entropy method. *Remote Sensing of Environment*, *135*, pp.52-63.

TEACHING EXPERIENCE

2024	**Guest Lecture** "*Climate-Agriculture Interactions in Arkansas: Insights from Remote Sensing*" in *Applied Climate course*, Department of Geosciences, University of Arkansas, Fayetteville.
2024	**Instructor** of *Weather and Climate*, Department of Geography, University of Central Arkansas.
2023	**Instructor** of *Principles of Geography*, Department of Geography, University of Central Arkansas.
2023-2024	**Instructor** of *GIS II*, Department of Geography, University of Central Arkansas.
2023-2024	**Instructor** of *Python Programming for Geospatial Analytics*, Department of Geography, University of Central Arkansas.
2022-2024	**Instructor** of *GIS I*, Department of Geography, University of Central Arkansas.
2020-2024	**Instructor** of *Geographic Field Technique*, Department of Geography, University of Central Arkansas.
2020-2022	**Instructor** of *Geographic Information Analysis*, Department of Geography, University of Central Arkansas.
2020-2022	**Instructor** of *Introduction to GIS*, Department of Geography, University of Central Arkansas.
2020-2022	**Instructor** of *Cartography*, Department of Geography, University of Central Arkansas.
2020	**Guest Lecture** "*Spatial statistics: from data to information*", Department of Geology, University of Dayton.
2019	**Guest Lecture** '*The monsoon climate*' in *future faculty teaching series*, Dartmouth Center for the Advancement of Learning.
2018	**Guest Lecture** '*A magic line- division of climate and land use/cover in China*' in *World Regional Geography course*, Department of Geology and Geography, West Virginia University.
2016	**Summer Instructor** of *World Regional Geography*, Department of Geology and Geography, West Virginia University. (3 hours/day, 12 undergraduate students)
2016	**Guest Lecture** '*Remote sensing of vegetation: Normalized Difference Vegetation Index (NDVI)*' in *Climate and Watersheds course,* Division of Forest and Natural Resources, West Virginia University.
2011	**Lab Instructor** of *Introduction to Remote Sensing*, Department of Geography, Beijing Normal University, China. Instructor: Dr. Yanchen Bo. (Spring Semester, 60 undergraduate students)

GRANT

Funded (External)

2023	**PI:** *Quantifying impacts of land cover change-climate interactions on ecosystem productivity in northwestern North America*, NASA EPSCoR Rapid Response (R3); with Di Yang (Co-PI). ($95,000)
2022	**Co-PI**: *Onboard computing systems for remote sensing spatio-temporal environmental data streams*, NASA EPSCoR RID; with Miaoqing Huang (PI) and Xiao Liu (Co-PI).

($40, 000)

2022	**PI:** *Characterizing Spatiotemporal Patterns of Soybean Phenology in the Northern Arkansas Delta Region Using Multi-Source Remotely Sensed Data from 2001 to 2020*, Arkansas Space Grant Consortium STEM Grant (01/2022-01/2023); with Brooks Pearson (Co-PI) ($5,000).
2022	**PI:** *Characterizing Spatiotemporal Patterns of Soybean Phenology in the Northern Arkansas Delta Region Using Multi-Source Remotely Sensed Data from 2001 to 2020*, Arkansas Space Grant Consortium Student Intensive Training (01/2022-01/2023); with Brooks Pearson (Co-PI) ($15,000).
2022	**PI**: *Identifying the effects of climatic and socioeconomic variables on the spread of COVID-19 in Arkansas using geospatial techniques*, Arkansas INBRE – Summer Manuscript Support Grant ($9,346.21)
2021	**Co-PI**: *Using historical and model data to guide landscape-scale restoration of fire-adapted shortleaf pine forests in the Ouachita Mountains*, Arkansas Space Grant Consortium New Researcher Grant (2022-2023), with William Flatley (PI) ($10,000).
2021	**Co-PI**: *Using historical and model data to guide landscape-scale restoration of fire-adapted vegetation communities in the Ouachita Mountains*, Arkansas Space Grant Consortium Student Intensive Training Grant (2022-2023), with William Flatley (PI) ($20,000).
2021	**PI**: *Quantifying irrigation impacts and its consequence climate variability on crop yield in Northern Arkansas Delta*, NASA EPSCoR RID (02/15/2021-02/14/2022); with Matthew Conolly (Co-PI) and Xiao Huang (Co-PI) ($40,000).
2020	**Co-PI**: *Assessing net ecosystem carbon exchange for the conterminous United States with MODIS Data and machine/deep learning models*, Microsoft Azure computation credit grant (01/2021-01/2022); with (Rongting Xu (PI), Jian Chen (Co-PI), and Di Yang (Co-PI)) (Computation credit equivalent to $15,000).
2016	Travel Funds to CESM Tutorial, Mesa Lab, National center for atmospheric research (NCAR), Boulder, CO (~$1,200).
2016	IGARSS Student Travel Funds, IEEE Geoscience and Remote Sensing Society, Beijing, China ($300).
2015	Travel Funds to NCL Workshop, Corporate Technical Training Center (CTTC), NCAR, Boulder, CO ($1,200).

Funded (Internal)

2022	**PI:** *Characterizing Spatiotemporal Patterns of Soybean Phenology in the Northern Arkansas Delta Region Using Multi-Source Remotely Sensed Data from 2001 to 2020*, Research and Grant Development Program (RGDP) Matching Funds, University of Central Arkansas (2022-2023); with Brooks Pearson (Co-PI) ($10,200).
2022	**PI**: *Community-based Tree Data Collection in Conway, Arkansas*, Service-Learning, University of Central Arkansas (2022); with William Flatley (Co-PI) ($213).
2021	**Solo-Mentor**: *Identifying the effects of climatic variables on the spread of COVID-19 in Arkansas*, Advancement of Undergraduate Research in the Sciences, University of Central Arkansas ($5,000).
2021	**Solo-Mentor**: *Estimating carbon emission induced by land cover and land use change in Arkansas*, Southwestern Energy Research Fellow, University of Central Arkansas ($1,500).

2020	**PI**: *Statewide land cover and land use change mapping to constrain uncertainty in the carbon budget in Arkansas,* University Research Council, University of Central Arkansas (05/2021-12/2022) ($5,178).
2020	**Recipient** of Faculty Development Grant, University of Central Arkansas ($750).
2020	**Co-PI**: *Assessing adaptation feedbacks to present and future climate extremes*, Neukom Institute CompX, Dartmouth College (01/2020- 01/2021); with Justin S. Mankin (PI) and Ethan Coffel (Co-PI) ($39,800).
2019	Postdoctoral Scholar Professional Development Award, Dartmouth College ($750).
2018	Open Access Author Fund, West Virginia University ($1700.43).
2014-2018	Graduate Student Travel Funds, West Virginia University (~$3,000).
2014	Graduate Student Travel Funds, William E. Vehse Endowment, West Virginia University ($200).

Not-Funded

2021	**PI:** *Quantifying the effects of climate extreme-irrigation interactions on crop yields in the Amu Darya and Syr Darya river basins*, NASA Land Cover and Land Use Change Program (01/2022-01/2025), with Justin S. Mankin (Co-PI). **Step -1 Approved**. Step-2 declined.
2020	**PI**: *Quantifying agricultural aid impacts on deforestation in Ethiopia using remote sensing data*, Early Career Grant, National Geographic Society (09/01/2021-08/32/2020), with Qingqian He (Co-PI), Beza Nisrane (Project member), and Rongting Xu (Project member).
2016	**Co-PI:** *Land use and land cover change influences on summer rainfall in Mainland China*, NASA Earth and Science Fellowship (NESSF) program (07/01/2016-06/30/2017); with Eungul Lee (PI).

AWARDS

Awards

2021	Award of External Funding for Creative Activities, Scholarship, and Research, University of Central Arkansas.
2018	Chinese Government Award for Outstanding Self-financed Student Abroad.
2017	Outstanding Merit Fellowship, West Virginia University.
2010-2013	Tuition Waiver Scholarship, Beijing Normal University, China.
2009	Chinese National Scholarship.
2007-2008	Fist Place Scholarship, China University of Mining and Technology, China.

Competition Awards

2018	Finalist in Remote Sensing Specialty Group Student Honors Paper Competition, AAG, New Orleans.
2016	First Place in the Student Oral Competition, WV GIS Conference, Morgantown, West Virginia.

PRESENTATIONS (underscore denotes advised students**)**

Oral

1. **He, Y.**, and Yang, D., **2024**. Enhanced Extreme Precipitation Simulation in China using NCAR CESM Based on Realistic Remotely-Sensed Land Cover and Land Use Data from 1982 to 2013. *Annual Meeting of Southwest Division of American Association of Geographers*, San Marcos, Texas, October 6-8.
2. Liu, W., Li, S., Prescott, C., Fan, D., Madson, A., **He, Y.**, and Yang, D., 2024. Land Use Classification from Historical Images Using Deep Learning. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
3. Im, A., Lee, E., and **He, Y.**, **2024**. Detecting land cover and land use transitions and the associated temperature changes in the East Asian monsoon region. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
4. Li, S., Liu, W., **He, Y.**, Yang, D., and Parazoo, N., **2024**. Regional climate effects of long-term land cover change: a case study in the ABoVE domain. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
5. **He, Y.**, Yang, D., Yang, A., and Lee, E., **2024**. Land cover and land use change impacts on regional climate extremes in China using remote sensing and climate model. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
6. Yadav, S., **He, Y.**, and Song, C., **2024**. Identification of Socioeconomic and Environmental factor for Quantifying Land Cover Change. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
7. Fang, F., Greenlee, A., **He, Y.**, and Eutsler, E., **2024**. An quantitative evaluation of urban street trees for environmental justice. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
8. Yang, D., Liu, Wei., Li, S., **He, Y.**, and Mitchell, J., **2024**. Quantifying Legacy Effects of Land Use on Forest Structure Across Scales. *Annual Meeting of American Association of Geographers*, Honolulu, Hawaii, Apr 16-20.
9. Vire, F., **2023**. Detecting Soybean Phenology in the Northern Arkansas Delta Region Using Multi-Source Remotely Sensed Data in 2020. *UCA CNSM Chalk Talk*, April 11, 2023.
10. Yang, D., Huang, X., **He, Y.**, Nelson, P., Low, R., McBride, S. and Mitchell, J., **2023**. Assessing global Landsat and Sentinel-2 derived land cover datasets using GLOBE observer land cover photo classification protocols. *Annual Meeting of American Association of Geographers*, Denver, Colorado, Mar 23-27.
11. Im, A., Lee, E. and **He, Y.**, **2023**. Detection land cover transitions and the impacts on temperature in the East Asian monsoon region. *Annual Meeting of American Association of Geographers*, Mar 23-27. (virtual paper)
12. **He, Y.**, **2022**. Land cover and land use change: trends, drivers, and impacts, *Graduate Colloquium in Department of Geography at Hyung Hee University, Seoul, South Korea.* (***invited***)
13. **He, Y.**, Chipman, J., Siegert, N. and Mankin, J.S., **2022**. Rapid land cover and land use change in the Indo-Malaysian region over the last 34 years based on AVHRR NDVI data, *Annual Meeting of Southwest Division of American Association of Geographers*, Fayetteville, AR, Oct 27-29.
14. **He, Y.**, Connolly, M. H., Rhodes, C., Xu, R., Filares-Arreguin, M., Huang, X. and Wang. Z., **2022**. Impacts of irrigation-climate interactions on crop yields in Arkansas Delta, *Annual Meeting of American Association of Geographers*, Virtual Meeting, Feb 25-March 1.
15. Yadav, S.K., Lee, E. and **He, Y.**, **2022**. Positive associations of vegetation with temperature over the alpine grasslands in the western Tibetan Plateau during May, *Annual Meeting of American Association of Geographers*, Virtual Meeting, Feb 25-March 1.
16. Oh, J., **He, Y.**, Lee, E. and Kim, Y., **2022**. Continuous annual land cover/land use maps of the East Asian Summer Monsoon region from 1982 to 2015, *Annual Meeting of American Association of Geographers*, Virtual Meeting, Feb 25-March 1.

17. Lee, E., **He, Y.**, Kim, Y., Im, A., Oh, J. and Kim, M., **2022**. Land cover and land use changes and monsoon variability in East Asia, *International Geographic Union Conference*, Paris, July 18-22.

18. Seminara, P., **2021**. Identifying the effects of climatic and socioeconomic variables on the spread of COVID-19 in Arkansas, *Annual Meeting of American Association of Geographers*, Virtual Meeting, Oct 14-16, **2021**. (**First Prize in the undergraduate paper competition**)

19. **He, Y.**, Connolly, M. H., Rhodes, C., Xu, R., Filares-Arreguin, M., Huang, X. and Wang. Z., **2021**. Impacts of irrigation-climate interactions on crop yields in Arkansas Delta, *Annual Meeting of Southwest Division of American Association of Geographers*, Virtual Meeting, Oct 14-16.

20. Filares-Arreguin, M., Connolly, M. H., Rhodes, C., and **He, Y.**, **2021**. Visual identification of soybean irrigation status with RGB drone imagery and the VARI index, *Annual Meeting of Southwest Division of American Association of Geographers*, Virtual Meeting, Oct 14-16.

21. He, Q., Meng, Q., Flatley, W., Buenemann, M., **He, Y.**, **2020**. Agricultural Aid and Deforestation in sub-Saharan Africa: A Sub-national Causal Analysis Based on Remotely Sensed Data of Sierra Leone, *Southwestern American Association of Geographers* , Virtual Meeting, Nov 17-19.

22. **He, Y.**, **2020**. Land use and land cover change impacts on regional climate. *Department of Geology, University of Dayton*, Feb 4. (Invited)

23. He, Q. and **He, Y.**, **2019**. Water conflict: an empirical test for neo-malthusian view with remote sensing data. *American Political Science Association*, Washington DC, Aug. 29-Sep. 01**.**

24. **He, Y.**, Mankin, J. S. and Lee, E., **2019**. Agricultural expansion in Northeast China and its impacts on regional climate. *American Association of Geographers,* Washington DC, Apr. 3-7.

25. Lee, E., **He, Y.** and Park, Y-L., **2019**. Could the future climate change pose a risk or benefit to bee development. *American Association of Geographers,* Washington DC, Apr. 3-7.

26. Yadav, S., Lee, E. and **He, Y.**, **2019**. Spatio-temporal evaluations of reanalysis surface temperatures in the Tibetan Plateau. *American Association of Geographers,* Washington DC, Apr. 3-7.

27. Shull, N., Lee, E. and **He, Y.**, **2019**. April vegetation greenness and its impact on near-surface climate conditions in South-Central Appalachia. *American Association of Geographers,* Washington DC, Apr. 3-7.

28. **He, Y.**, McNeil, B., Warner, T.A. and Lee, E., **2018**. Reducing uncertainties in applying remotely sensed land use and land cover maps in land-atmosphere interaction: identifying change in space and time. *American Association of Geographers*, New Orleans, LA, Apr. 10- Apr. 14.

29. Yadav, S., Lee, E. and **He, Y.**, **2018**. The impact of temperature change in Tibetan Plateau on summer rainfall on western Nepal. *American Association of Geographers*, New Orleans, LA, Apr. 10- Apr. 14.

30. He, Q., Pang, X. and **He, Y.**, **2018**. Link Remote Sensing and Political Science: An Application of Foreign Development Aid. *Asian Political Methodology Meetings*, Seoul, Korea, Jan. 11-12**.**

31. He, Q. and **He, Y.**, **2017**. Evaluating Agriculture Aid- A New Approach based on Remotely Sensed Data. *American Political Science Association*, San Francisco, CA, Aug. 31-Sep. 03**.**

32. Gaertner, B., Nicolas, Z., Fernandez, R. and **He, Y.**, **2016**. Climate warming impacts on phenological patterns and hydrology in Central Appalachia, United States. *American Geophysical Union Fall Meeting*, San Francisco, California, Dec. 12- 16.

33. **He, Y.**, Lee, E., and Warner, T. A., **2016**. Continuous annual land use and land cover mapping using AVHRR GIMMS NDVI3g and MODIS MCD12Q1 in China from 1982 to 2012. *IEEE International Geoscience and Remote Sensing Symposium*, Beijing, China, July10-15.

34. **He, Y.**, Lee, E. and Warner, T. A., **2016**. Detect geographic and temporal patterns of land use and land cover change in China. *West Virginia GIS Conference*, Morgantown, WV, May 3- 6.

35. **He, Y**. and Lee, E., **2015**. Empirical relationships of oceanic heat sources and vegetation activity with summer rainfall over the Sahel. *American Association of Geographers*, Chicago, Illinois**,** April 21-25.

36. Bo, Y., and **He, Y.**, **2014**. Linking in situ LAI and fine resolution remote sensing data to estimate the reference LAI for the coarse resolution satellite LAI products validation based on the geostatistical regression. *SPIE: Remote sensing for Agriculture, Ecosystem, and Hydrology*, Amsterdam, Netherlands, Sep. 22-25.

37. **He**, **Y.** and Bo, Y., **2011**. A consistency analysis of MODIS MCD12Q1 and MERIS Globcover land cover datasets over China. *19ᵗʰ International Conference on Geoinformatics*, Shanghai, China, June 24-26.

Poster

1. **He, Y.** and Yang, D., **2023**. Evaluation Earth system model performance in China using a realistic remotely sensed time-series of annual land cover and land use data from 1982 to 2013. *Annual Meeting of American Association of Geographers*, Denver, Colorado, Mar 23-27.

2. Harper, W., Flatley, W. and **He, Y.**, **2023**. Modeling Pre-EuroAmerican Settlement Forest Composition, Structure, and Spatial Pattern in the Ouachita Mountains Ecoregion, Arkansas, USA. *Arkansas STEM Posters @ the Capitol*, Little Rock, Arkansas, Feb 8. (Committee Chair, Dr. William Flatley)

3. Harper, W., Flatley, W. and **He, Y.**, **2023**. Reconstructing Pre-EuroAmerican Settlement Forest Composition in the Ouachita Mountains, Arkansas. *Annual Meeting of American Association of Geographers*, Denver, Colorado, Mar 23-27. (Committee Chair, Dr. William Flatley)

38. Harper, W., Flatley, W. and **He, Y.**, **2022**. Reconstructing Pre-EuroAmerican Settlement Forest Composition in the Ouachita Mountains, Arkansas. *Annual Meeting of Southwest Division of American Association of Geographers*, Fayetteville, AR, Oct 27-29. (Committee Chair, Dr. William Flatley) (**First Prize in the graduate poster competition**)

4. Harper, W., Flatley, W. and **He, Y.**, **2022**. Reconstructing Pre-EuroAmerican Settlement Forest Composition in the Ouachita Mountains, Polk County, Arkansas. *Annual Arkansas Space Grant Consortium Symposium*, Morrilton, AR, April 15ᵗʰ. (Committee Chair, Dr. William Flatley)

5. Filares-Arreguin, M., **He, Y.**, Connolly, M. H. and Huang, X., **2022**. Irrigated and rainfed soybean classification using Landsat and drone imagery. *UCA CNSM Poster Symposium,* April 22.

6. **He, Y.**, Chipman, J., and Mankin, J. S. **2020**. Rapid Indo-Malaysian land cover and land use change over the last 35 years, *American Geophysical Union,* Virtual Meeting, Dec. 1-17. (**with 3-minute talk**)

7. **He, Y.** and Mankin, J. S., **2019**. Disentangling warming- from land use- induced precipitation changes over China. *American Geophysical Union*, San Francisco, Dec 09-13.

8. **He, Y.**, Lee, E. and Mankin, J. S., **2018**. The influence of Northeastern China cropland expansion on regional climate. *American Geophysical Union*, Washington DC, Dec 10-14.

9. **He, Y.**, Lee, E. and Warner, T. A., **2016**. Land use and land cover change detection based on AVHRR GIMMS NDVI3g and MODIS MCD12Q1 in Northeast China from 1982 to 2012. *American Association of Geographers*, San Francisco, CA, Mar. 29- Apr. 2.

10. Lee, E., **He, Y.**, Zhou, M. and Liang, J., **2016**. Potential feedback of recent vegetation changes on summer rainfall in the Sahel. *American Association of Geographers*, San Francisco, CA, Mar. 29- Apr. 2.

11. Lee, E., **He, Y.**, Ahn, J.J. and Park, Y-L. **2015**. Effects of future climate change on interactions between pollinator bees and bee parasites. *American Association of Geographers*, Chicago, Illinois, April 21-25.

12. Meng, L., Lee, E. and **He, Y.**, **2015**. Spatial and temporal variations of agriculture irrigated in China. *American Association of Geographers*, Chicago, Illinois, April 21-25.

13. **He, Y.** and Lee, E., **2014**. Comparisons of AVHRR GIMMS NDVI and MODIS NDVI datasets based on three temporal resampling methods over the Sahel in Africa. *American Association of Geographers*, Tampa, Florida, April 8-12.

14. **He, Y.**, Bo, Y., Zhu, Y. and Li, A., **2013**. Estimating spatial means of elementary sampling unit using MSN theory for field Leaf Area Index collection. *35th International Symposium on Remote Sensing of Environment,* Beijing, China*,* April 22-26.

15. **He, Y.**, Bo, Y. and Li, A., **2012**. Validation and inter-comparison of GLASS, MODIS and CYCLOPES global leaf area index products over the BigFoot and VALERI sites. *First International Symposium on Land Remote Sensing: Algorithms and Products*, Chengdu, China.

16. Ji, X., Bo, Y., Cheng, J., **He, Y.** and Liu, X., **2012**. The method of assessing shape similarity of object-based classification results of remote sensing imagery. *Second International Workshop on Earth Observation and Remote Sensing Applications*, Shanghai, China, June 8-11.

STUDENT MENTORING

University of Arkansas- Fayetteville

Graduate

2024-	Putu Pujiantari (PhD, Committee Member)
2024-	Seth Guidry (MS, Committee Chair)
2024-	Braedyn McBroom (MS, Committee Member)

University of Central Arkansas

Graduate

2022-2024	Faith Vire (MS, Committee Chair)
2023-2024	Zachary Jewell (MS, Committee Member)
2021-2023	Willow Hoper (MS, Committee Member)

Undergraduate

2023	Kayla Stahl (Research Mentor)
2023	Paul Chagnon (Research Mentor)
2021-2023	Noah Walker (Minor Advisor)
2021-2022	Caden Rhodes (Research Mentor)
2021-2022	Marisol Filares Arreguin (Research Mentor)
2021-2022	Paul Seminara (Research Mentor)
2021-2022	Wei Tay (Research Mentor)

West Virginia University

2018	Nathan Shull (undergraduate) (Research Mentor)

Beijing Normal University, China

2010   Zheng Li (undergraduate) (Research Mentor)

PROFESSIONAL ACTIVATES

Service to Profession

2015-present   **Peer-Reviewer:** *Global Biology Change*, *Environmental Research Letters*, *Geophysical Research Letters*, *ISPRS Journal of Photogrammetry and Remote Sensing*; *Frontiers of Earth Science*, *Atmosphere*, *International Journal of Remote Sensing*, *Journal of Arid Environments*, *Remote Sensing Letters*, *Sensors*, *Applied Geography*, *Remote Sensing*, *Sustainability*, *Climate, Environmental Research Communications, Journal of Asia-Pacific Entomology, Journal of Mountain Science*, *Forest Ecosystems*, *Journal of Geographical Science*, *Agronomy*, Scientific Report, *IEEE Geoscience and Remote Sensing Letters, Earth's Future, Transaction in GIS, Earth System Science Data*

2022-present   **Reviewer** for *NSF*

2020-present   **Topic Board** of *Atmosphere*

2020-present   **Reviewer Board** of *Remote Sensing*

2020-present   **Reviewer Board** of *Sustainability*

2023   **External Examiner** for a Ph.D. thesis at the University of KwaZulu-Natal, South Africa.

2022-2023   **Guest editor** of **s**pecial issue: Advances in Mapping Land Use and Land Cover Based on Remotely Sensed Data, in *Remote Sensing*.

2021   **Guest editor** of special issue: Land-Atmosphere Interactions under Climate Change in *Atmosphere*

2020-2021   **Guest editor** of jointed special issue: Land and Monsoon Interactions: Physical and Societal Aspects of Asian Monsoons in *Land* and *Climate*.

2022-2023   **Judge** of Remote Sensing Specialty Group (RSSG), AAG

2022   **Judge** of Graduate and Undergraduate Paper Competition, SWAAG.

2020   **Judge** of Outstanding Student Presentation Awards, AGU.

2024   **Co-organizer and Chair:** Advances in Understanding Land-Atmosphere Interactions and Their Role in Climate System, *American Association of Geographers,* Honolulu Hawaii.

2019   **Co-organizer:** Integrating remotely-sensed data into climate models, *American Association of Geographers,* Washington, DC.

2018   **Co-organizer:** Monsoon geography: physical and societal aspects of monsoon, *American Association of Geographers,* New Orleans, Louisiana.

2016   **Co-organizer and Chair:** Land cover dynamics session, *IEEE International Geoscience and Remote Sensing Symposium*, Beijing, China.

2014   **Volunteer**, American Association of Geographers, Tampa, Florida.

Service to Department

10/01/2022   Faculty Representative at Bear Facts Day, Department of Geography, University of Central Arkansas

2021-2022   GIS Curriculum Development Committee, Department of Geography, University of Central Arkansas

| 2016-2017 | Geography Graduate Colloquium Committee, Department of Geology and Geography, West Virginia University. |

Service to College

| 2022 | Committee Member of Outstanding Student Award, UCA College of Natural Sciences and Mathematics |

Service to University

| 2022-2025 | Core Council Committee Member, UCA |
| 2022 | Graduate Council Committee Member, UCA |

Service to Community

| 2022 | Volunteer in Arbor Day at Laurel Park, Conway Tree Board. |

Faculty Development

2023	Building Leadership and Team Skills for Success in the Sciences, COLDEX
2022	Global Learning Institute, UCA Center for Global Learning and Engagement
2022	Translating Geography Degrees into Environmental, Conservation, and Sustainability Work, AAG Professional Development
2021	Teaching Excellence Institute, UCA Center for Excellence in Teaching and Academic Leadership
2019	Future Faculty Teaching Series, Dartmouth Center for the Advancement of Learning
2019	Creating Inclusive Course Materials, Dartmouth Center for the Advancement of Learning
2017	Grant Writers' Seminar & Workshop, West Virginia University.

WORKSHOPS

| 2016 | Community Earth System Model (CESM) Tutorial, Mesa Lab, National center for atmospheric research (NCAR), Boulder, CO. |
| 2015 | NCAR common language (NCL) workshop, Corporate Technical Training Center (CTTC), NCAR, Boulder, CO. |

INTERN EXPERIENCE

2014-2015	**Summer Intern** at WV GIS Technical Center, West Virginia.
2010-2011	**Assistant Officer** of Graduate Affairs, Beijing Normal University, China.
2010	**Summer Intern**, Xuzhou Institute of Survey and Mapping, Jiangsu province, China.

PROFESSIONAL MEMBERSHIPS

2018-present	American Geophysical Union
2013-present	American Association of Geographers
2016-present	IEEE Geoscience and Remote Sensing Society