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Updated on Nov 18, 2021

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EDUCATION

- Ph.D.** Department of Geography, University of South Carolina, Columbia, South Carolina, USA.
- M.S.** School of City Planning & Architecture, Georgia Institute of Technology, Atlanta, Georgia, USA.
- B.S.** School of Remote Sensing and Information Engineering, Wuhan University, Wuhan, Hubei Province, China.

ACADEMIC APPOINTMENT

- 2020 Assistant Professor, Department of Geosciences, University of Arkansas, Fayetteville, Arkansas, USA
- 2016 Research and Teaching Assistant, Department of Geography, University of South Carolina, Columbia, South Carolina, USA.

RESEARCH INTERESTS

Geospatial analysis
Big data analytics
Spatial and social data mining
Remote sensing
GeoAI and Deep Learning

PUBLICATIONS

Refereed Journal Articles (published: #53, under review: #64)

An “*” represents a student under my supervision; a “†” indicates the corresponding author.

Submitted [Huang, X.](#) †, Wang, S., Lu, J., Xu, Y., Li, D., Li, X., Hu, T., & Ye, X. Homophily, a non-negligible force that drives human mobility (Under Review).

[Huang, X.](#), Bao, X., Zhao, B. †, & Li, Z. Impact of COVID-19 on black-owned restaurants: what can be revealed from big mobility data? (Under Review).

[Huang, X.](#) †, Xu, Y., Liu, R., Wang, S., Wang, S., Zhang, M., Kang, Y., Gao, S., Zhao, B., Li, Z. Exploring home-dwelling time patterns during the COVID-19 pandemic via

CURRICULUM VITAE

- Bayesian inference: policy compliance, spatial disparity, and exposed inequity (Under Review)
- Huang, X., Martin, Y., Wang, S., Zhang, M., Ge, Y., & Li, Z. The promise of excess mobility analysis: measuring episodic-mobility with geotagged social media data (Under Review).
- Huang, X. †, Zhao, Y., Wang, S., Li, X., Yang, D., Feng, Y., Zhu, L., & Chen, B. Unfolding community homophily in U.S. metropolitans via fine-grained mobile phone location data (Under Review).
- Wang, S., Huang, X. †, Hu, T., Corcoran, J., Zhang, M., Li, Z., Ning, H., Khan, A., & Liu, Y†. The times they are changing: tracking the shifts in mental health signals in Australia before, during and post the COVID-19 pandemic (Under Review).
- Chuwu, M., & Huang, X. Mapping and monitoring urban green space transformation in a rapidly growing city using geospatial technique (Under Review).
- Lu, J., Huang, X., Xiao, X., Li, Z., Kupfer, J., Wei, H., Wang, S., & Zhu, L. Spatial, temporal, and social dynamics in visitation to US national parks before and during the COVID-19 pandemic: A big data approach (Under Review).
- Li, X., Huang, X., & Li, D. Does COVID-19 aggravate spatial segregation? Leveraging crowdsourcing mobility data and social vulnerability index to quantify spatial segregation (Under Review).
- Ye, X., & Huang, X. Adaptation planning for interdependent infrastructure systems to enhance resilience under climate change (Under Review).
- Wang, S., Zhang, M., Huang, X., Hu, T., Li, Z., Sun, Q., & Liu, Y. Urban-regional disparities in mental health in Australia during the COVID-19 pandemic by Twitter data and machine learning models (Under Review).
- Wei, H., Zhu, L., Huang, X., Wang, S., & Lu, J. Are Urban parks in NYC for everyone? Implications from 1 million park visitation data (Under Review).
- Wang, S., Wang, R., Huang, X., Li, Z., & Hu, Y. An analytical framework to evaluate the effect of COVID-19 on the restaurant industry: a study of New York City (Under Review).
- Cheng, X., Li, Z., & Huang, X. An information-theoretic approach for evaluating lossless compression techniques applied to remotely sensed images (Under Review).
- Dang, C., Shao, Z., Huang, X., Cheng, G., & Qian, J. Urbanization advances spring phenology but high urbanization delays spring phenology (Under Review).
- Tian, B, Nong, J., Huang, X., & Liao, Q. Changes in spatiotemporal patterns of birds under the COVID-19 pandemic and its indicators for urban ecological planning: a case study of Hong Kong (Chinese) (Under Review).
- Dang, C., Shao, Z., Huang, X., Qian, J., Cheng, G., Zhang, S., Xiong, W., & Fan, Y. A new distance-based phenology extraction (DBPE) method using solar chlorophyll fluorescence (Under Review).
- Zou, S., Zhang, L., Huang, X., Lv, X., & Osei, F. Early warning of cultivated land ecological security using Random-Forest-Multiple Layer Perceptron (RF-MLP): a case study on China's main grain producing areas (Under Review).
- Wu, W., Huang, X., Shao, Z., Teng, J., Li, D. SAR-DRDNet: A SAR Image Despeckling Network with Detail Recovery (Under Review).

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- Feng, Y., Huang, X., Sester, M. Social media VGI analysis for natural disasters in the deep learning era: review, opportunities, and challenges (Under Review).
- Pan, J., Cui, W., An, X., Huang, X., Zhang, H., Zhang, S., Zhang, R., Li, X., Cheng, W., and Hu, Y. MapsNet: Multi-attention mechanism feature constrained pixel-shuffle image fusion network for change detection in high resolution satellite image (Under Review).
- Wu, W., Shao, Z., Huang, X., & Guo, S. Urban impervious surface extraction using seasonal time-series SAR images (Under Review).
- Wang, J., Shao, Z., Huang, X., Lu, T., Zhang, R., & Bai, L. A lightweight deep unfolding method for satellite imagery super-resolution (Under Review).
- Ning, X., Zhang, H., Shao, Z., Huang, X., Wang, H., Zhang, R., & Hao, M. Sustainability evaluation of Chinese capital cities based on urban geographic environment index (Under Review).
- Wang, J., Shao, Z., Lu, T., Huang, X., & Zhang, R. Deep locally linear embedding network (Under Review).
- Cheng, X., Hu, E., Huang, X., Hu, D., & Zhu, A. Integrating structural description of data format information into programming to auto-generate reading programs for geographical data files (Under Review).
- Feng, X., Shao, Z., Huang, X., Hu, L., Lv, X., Zhuang, Q., Integrating Zhuhai-1 hyperspectral data with Sentinel-2 data to improve 10-m resolution impervious surface mapping (Under Review).
- Dang, C., Shao, Z., Huang, X., Qian, J., Cheng, G., Ding, Q., & Fan, Y. Assessment of impact of increasing temperature and decreasing soil moisture on global ecosystem productivity (Under Review).
- Wang, X., Shao, Z., Huang, X., & Li, D. Spatiotemporal temperature fusion based on a deep convolutional network. (Under Review).
- Cheng, G., Shao, Z., Wang, J., Huang, X., & Dang, C. Dual-branch multi-level feature aggregation network for pansharpening (Under Review).
- Zhuang, Q., Shao, Z., Huang, X., Cai, B., Altan, O. Urbanization and soil salinization weaken climate-driven increases in vegetation production capacity of arid farmland ecosystem (Under Review).
- Wu, X., Deng, X., & Huang, X. Analysis of urban spatial structure in western Guangdong based on point of interest big data (Under Review).
- Li, D., Peng, H., Xu, X., Huang, X., Liu, J., & Shao, Z. Prospects on information retrieval based on remote sensing image sharing ontology (Under Review).
- Wang, Z., Lam, N., Sun, M., Huang, X., Shang, J., Zou, L., Wu, Y., & Mihunov, V. A machine learning approach for detecting rescue requests from social media (Under Review).
- Shao, Z., Wang, J., Deng, L., Huang, X., Lu, T., Zhang, R., Lv, X., Ding, Q., & Wang, Z. GLSD: The Global Large-Scale Ship Database and Baseline Evaluations (Under Review).
- Zhang, H., Shao, Z., Hu, B., Huang, X., Zhao, J., & Wu, W. Comparing runoff converging criteria weight sensitivity in AHP based flood risk estimation (Under Review).
- Cai, B., Shao, Z., Fang, S., Huang, X., Tang, Y & Zhuang, Q. Spatiotemporal analysis of human-earth relationship coordination involved in urban-rural transition (Under Review).

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- Zhou, L., Shao, Z., Wang, S., & Huang, X. Deep learning-based local climate zone classification using Sentinel data (Under Review).
- Wang, X., Li, D., Huang, X. & Shao, Z. A systematic review on remote sensing of urban heat island (Under Review).
- Shao, Z., Pan, W., Huang, X., Li, Y. & Peng, S. Video stabilization for improved video anomaly detection (Under Review).
- Feng, X., Shao, Z., & Huang, X. Refined impervious surface extraction via fused hyperspectral multispectral images (Under Review).
- Zhuang, Q., Shao, Z., Huang, X., Zhang, Y., Wu, W., Feng, X., Lv, X., Ding, Q., Cai, B., Altan, O. Evolution of soil salinization under the background of landscape patterns (Under Review)
- Zhang, Y., Shao, Z., Feng, X., Huang, X., Zhou, Z., Li, Y. Comparison of the influence of spatial configuration of green space and urban impervious surface temperature at multi-grid scales (Under Review).
- Song, P., Shao, Z., Huang, X. & Zhang, R. BiCSNet: A Novel Bidirectional Cross-Scale Backbone for Recognition and Localization. (Under Review).
- Wang, J., Shao, Z., Huang, X., et al. NSN: Deep Non-local Self-regression Networks for Satellite Image Super-resolution (Under Review).
- Yu, W., Shao, Z., & Huang, X. Fine-Grained multiscale community detection of urban agglomeration from human interactive network using big signaling data (Under Review).
- Wang, P., Li, X., Huang, X. Population prediction with micro spatiotemporal granularity based on integrated LSTM and CA model: a case study of Chongming District, Shanghai (Under Review)
- Shao, Z., Li, Y., Huang, X., Cai, B., Ding, L., Pan, W., Zhang, Y. Monitoring urban ecosystem service value using multi-level regular grids (Under Review).
- Shao, Z., Liu, L., Huang, X., Altan, O. & Javed, A. Urban Impervious Surface Monitoring from Time-series of High-Resolution Remote Sensing Images with Time-invariant Spectral Features (Under Review).
- Zhang, H., Shao, Z., Zhao, J., Huang, X., Yang, J., Hu, B., & Wu, W. WZSAHP: An extend watershed-based zonal statistic AHP model for flood risk estimating--by constraining sub-watershed to runoff related indicators (Under Review)
- Li, X., Yu, S., Dadashova, B., Cui, W., Huang, X. Do underserved and socially vulnerable communities observe more crashes? A spatial examination of social vulnerability and crash risks in Texas (Under Review)
- Shao, Z., Zhang, Y., Zhang, C., & Huang, X. Mapping impervious surfaces with hierarchical spectral mixture analysis incorporating endmember spatial distribution (Under Review).
- Cai, B., Shao, Z., Fang, S., Huang, X., Tang, Y., Zheng, M., & Zhang, H. Evolutions, deviations, and suggestions from urban agglomerations in China (Under Review).
- Fu, H., Shao, Z., Cheng, T., Huang, X., & Peng, F. An integrated model combining ATC model and 3D-CNN model for reconstructing high spatial-temporal LSTs (Under Review).
- Ren, M., Xu, Y., Park, S., & Huang, X. Impact of COVID-19 on domestic tourism demand-a case of Jeju, Republic of Korea (Under Review)

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- Ning, H., Li, Z., Wang, C., Hodgson, M., Huang, X., & Li, X. Surveying in the land cover maps covered from street view images: a case study on sidewalk network extraction and width measuring for wheelchair users (Under Review).
- Zhang, R., Shao, Z., Li, D., Wang, J., Wang, Y. & Huang, X. Adaptive dense pyramid network for object detection in UAV imagery (Under Review).
- Gong, X., Peng, S., Lu, Y., Wang, S., Huang, X., & Ye, X. Social network analysis of nonprofits in disaster response: the case of Twitter during the COVID-19 pandemic in the United States (Under Review).
- He, Y., Connolly, M., Rhodes, C., Xu, R., Arreguin, M., Huang, X., & Wang, Z. Impacts of irrigation-climate interactions on soybean yields in Arkansas Delta (Under Review).
- Li, H., Mao, D., Li, X., Wang, Z., Yan, H., & Huang, X. China achieved effective control on *Spartina alterniflora* invasion from 2015 to 2020 (Under Review).
- Li, X., Martin, M., Samant, S., Dadashova, B., & Huang, X. Toward a crowdsourcing solution to estimate border crossing times using market-available connected vehicle data (Under Review).
- Li, H., Jia, M., Li, X., Wang, Z., & Huang, X. Quantification of changes in ecosystem service in Liaoning Province, China as a result of climate variability and land cover change (Under Review).
- Li, H., Mao, D., Li, X., Wang, Z., Jia, M., Huang, X., & Xiang, H. Assessing the impact of diverse policies on ecosystem services in the Liaoning Province, China (Under Review).
- Xing, R., Zhu, L., Du, W., Wells, M., Sun, Y., Huang, X., Wei, H., Huang, Z., Liu, P., and Rao, J. A Novel Approach for Volatility Prediction with Financial News (Under Review).
- 2021 Huang, X.[†], Zhu, D., Zhang, F., Liu, T., Li, X., & Zou, L (2021). Sensing population distribution from satellite imagery via deep learning: model selection, neighboring effect, and systematic biases. doi: 10.1109/JSTARS.2021.3076630.
- Huang, X.[†], Lu, J., Gao, S., Wang, S., Liu, Z., & Han, X. (2021). Staying at home is a privilege: evidence from fine-grained mobile phone location data in the U.S. during the COVID-19 pandemic. *Annals of American Association of Geographers*. doi: 10.1080/24694452.2021.1904819.
- Huang, X.[†], Li, Z., Jiang, Y., Ye, X., Deng, C. Zhang, J., & Li, X. (2021). The Characteristics of multi-source mobility datasets and how they reveal the luxury nature of social distancing in the U.S. during the COVID-19 pandemic. *International Journal of Digital Earth*. doi:10.1080/17538947.2021.1886358.
- Li, Z., Huang, X., Ye, X., Jiang, Y., Yago, M., & Hodgson, M. Measuring global multi-scale place connectivity using geotagged social media data. *Scientific Reports*. doi: 10.1038/s41598-021-94300-7.
- Li, Z., Huang, X., Hu, T., Ning, H., Ye, X., Huang, B., & Li, X. ODT FLOW: Extracting, Analyzing, and Sharing Multi-source Multi-scale Human mobility. *PLOS ONE*. doi: 10.1371/journal.pone.0255259.
- Xu, D., Huang, X., & Li, Z. Multi-Exit Evacuation Simulation based on Deep Reinforcement Learning. (2021). *Transactions in GIS*. doi: 10.1111/tgis.12738.
- Jiang, Y., Huang, X., Li, Z. Spatiotemporal patterns of human mobility and its association with land use types during the COVID-19 in New York City using Twitter data. *ISPRS International Journal of Geo-Information*. doi: 10.3390/ijgi10050344.

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- Wang, P., Huang, X., Mango, J., Zhang, D., Xu, D., & Li, X. A hybrid population distribution prediction approach integrating LSTM and CA models with micro spatiotemporal granularity: a case study of Chongming District, Shanghai. *ISPRS International Journal of Geo-Information*. doi: 10.3390/ijgi10080544.
- Shao, Z., Tang, Y., Huang, X., & Li, D. (2021). Monitoring Work Resumption of Wuhan in the COVID-19 Epidemic Using Daily Nighttime Light. *Photogrammetric Engineering & Remote Sensing*, 87(3), 195-204.
- Li, Y., Shao, Z., Huang, X., Peng, S., & Cai, B. Meta-FSEO: a meta-learning fast adaptation with self-supervised embedding optimization for few-shot remote sensing scene classification. *Remote Sensing*, 13(14), 2776.
- Wang, S., Noland, R. B., Huang, X. Does ridersourcing provide equal accessibility?. *Annals of American Association of Geographers* (Accepted).
- Ding, Q., Shao, Z., Huang, X., & Altan, O. DSA-Net: A novel deeply supervised attention-guided network for building change detection in high-resolution remote sensing images, *International Journal of Applied Earth Observation and Geoinformation*. doi: 10.1016/j.jag.2021.102591.
- Lv, X., Shao, Z., Huang, X., Zhou, W., Ming, D., Wang, J., & Tong C. BTS: a binary tree sampling strategy for object identification based on deep learning. *International Journal of Geographical Information Science*. doi: 10.1080/13658816.2021.1980883.
- Zhang, S., Shao, Z., Huang, X., Bai, L., & Wang, J. An internal-external optimized convolutional neural network for arbitrary oriented object detection from optical remote sensing images. *Geo-spatial Information Science*. doi: 10.1080/10095020.2021.1972772.
- Shao, Z., Ding, Q., Huang, X., & Altan Orhan. Improving urban land cover mapping with the fusion of optical and SAR data based on feature selection strategy. *Photogrammetric Engineering & Remote Sensing* (Accepted).
- Ding, Q., Shao, Z., Huang, X., & Altan, O. Monitoring, analyzing, and predicting urban surface subsidence: a case study of Wuhan City, China. *International Journal of Applied Earth Observation and Geoinformation*, doi.org/10.1016/j.jag.2021.102422.
- Wang, J., Shao, Z., Huang, X., Lu, T., & Zhang, R. A dual-path fusion network for pan-sharpening. *IEEE Transactions on Geosciences and Remote Sensing*. doi: 10.1109/TGRS.2021.3090585.
- Hu, B., Xu, Y., Huang, X., Cheng, Q., Ding, Q., & Li, Y. Improving urban land cover classification with combined use of Sentinel-2 and Sentinel-1 data. *ISPRS International Journal of Geo-information*. doi: 10.3390/ijgi10080533.
- Wang, J., Shao, Z., Huang, X., Lu, T., Zhang, R., & Ma, J. Enhanced image prior for unsupervised remote sensing super-resolution. *Neural Networks*, doi: 10.1016/j.neunet.2021.06.005.
- Tang, Y., Shao, Z., Huang, X., & Cai, B. Mapping Impervious Surface Areas using Time-series Nighttime Light Data and MODIS Products. *Remote Sensing*, 13(10). doi: 10.3390/rs13101900.
- Wang, Z., Shao, Z., Huang, X., Wang, J., & Lu, T. Spatial-spectral cross attention network for hyperspectral image denoising. SSCAN: A Spatial-Spectral Cross Attention Network for Hyperspectral Image Denoising. *IEEE Geoscience and Remote Sensing Letters*. doi: 10.1109/LGRS.2021.3112038.

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- Wang, J., Shao, Z., Huang, X., Lu, T., Zhang, R., & Lv, X. Spatio-temporal pooling for action recognition in videos. *Neurocomputing*. doi: 10.1016/j.neucom.2021.04.071.
- Li, C., Shao, Z., Zhang, L., Huang, X., & Zhang, M. (2021). A comparative analysis of index-based methods for impervious surface extraction using multi-seasonal Sentinel-2 satellite data. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. doi: 10.1109/JSTARS.2021.3067325.
- Zhuang, Q., Shao, Z., Huang, X., Zhang, Y., Wu, W., Feng, X., Lv, X., Ding, Q., Cai, B., & Altan, O. Evolution of soil salinization under the background of landscape patterns in the irrigated northern slopes of Tianshan Mountains, Xinjiang, China. *CATENA*. doi: 10.1016/j.catena.2021.105561.
- Shao, Z., Gu, Y., Huang, X., Fu, Y., Gao, Y., & Fan, Y. Assessing the impact of land use changes on net primary productivity in Wuhan, China, Photogrammetric Engineering & Remote Sensing (Accepted).
- Shao, Z., Zhou, Z., Huang, X., & Zhang, Y. (2021). MRENet: Simultaneous Extraction of Road Surface and Road Centerline in Complex Urban Scenes from Very High-Resolution Images. *Remote Sensing*, 13(2), 239. doi:10.3390/rs13020239.
- Martin, Y., Li, Z., Ge, Y., & Huang, X. Towards real-time population estimates: introducing Twitter daily estimates of residents and non-residents at the county level. *Social Sciences*. doi:10.3390/socsci10060227.
- Cai, B., Shao, Z., Fang, S., Huang, X., Huq, M., Tang, Y., Li, Y., Zhuang, Q. Finer-scale spatiotemporal coupling coordinate model between socioeconomic activity and eco-environment: a case study of Beijing, China. *Ecological Indicators*. doi: 10.1016/j.ecolind.2021.108165.
- Li, X., Xu, H., Huang, X., Guo, C., Kang, Y., & Ye, X. Emerging Urban-Geo Data Sources to Reveal Human Mobility Dynamics During the COVID-19 Pandemic: Opportunities and Challenges. *Computational Urban Sciences*. doi: 10.1007/s43762-021-00022-x.
- Shao, Z., Cheng, G., Li, D., Huang, X., Lu, Z. & Liu, J. Spatio-temporal-spectral-angular observation model that integrates observations from UAV and mobile mapping vehicles for better urban mapping. *Geo-spatial Information Science*. doi: 10.1080/10095020.2021.1961567.
- Liu, Z., Zhang, A., Yao, Y., Shi, W., Huang, X., & Shen, X. (2021). Analysis of the performance and robustness of methods to detect base locations of individuals with geo-tagged social media data. *International Journal of Geographical Information Science*, 35(3), 609-627.
- Kupfer, J., Li, Z., Ning, H., & Huang, X. Using big data to track the effects of the COVID-19 pandemic on national park visitation. *International Journal of Geo-information*. doi: 10.3390/su13169366.
- Shao, Z., Wang, J., Lu, T., Zhang, R., Huang, X., & Lv, X. Internal and External Spatial-temporal Constraints for Person Reidentification. *Journal of Visual Communication and Image Representation*. doi: 10.1016/j.jvcir.2021.103302.
- Zhang, R., Newsam, S., Shao, Z., Huang, X., Wang, J. & Li, D. Multi-Scale Adversarial Network for Vehicle Detection in UAV Imagery. *ISPRS Journal of Photogrammetry and Remote Sensing*. doi:10.1016/j.isprsjprs.2021.08.002.
- Li, X., Ning, H., Dadashova, B., Ma, A., Kang, Y., Huang, X. Intersection Audit: An Effective Protocol to Identify Signalized Intersections by Mining Street View Images, Cartography and Geographic Information Science (Accepted).

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- Hu, T., Wang, S., Luo, W., Zhang, M., Huang, X., Yan, Y., Liu, R., Ly, K., Kacker, V., She, B., Li, Z. Revealing public opinion towards COVID-19 vaccines with Twitter data in the United States: a spatiotemporal perspective. *Journal of Medical Internet Research*. doi: 10.2196/30854.
- Hu, T., Wang, S.*, She, B., Zhang, M., Huang, X.†, Cui, Y., Khuri, J., Hu, Y., Fu, X., Wang, X., Wang, P., Zhu, X., Bao, S., Guan, W., Li, Z. Human mobility data in the COVID-19 pandemic: characteristics, applications, and challenges. *International Journal of Digital Earth*, doi: 10.1080/17538947.2021.1952324.
- Ning, H., Ye, X., Wang, S., Li, Z., Wang, W., & Huang, X. Exploring the vertical dimension of street view image based on deep learning: a case study on lowest floor elevation estimation. *International Journal of Geographical Information Science*. doi: 10.1080/13658816.2021.1981334.
- Shao, Z., Feng, X., Bai, L., Jiao, H., Jiao, H., Zhang, Y., Li, D., Fan, H., Huang, X., Ding, Y., Altan, O., & Salemf, N. Monitoring and Predicting Desert Locust Plague Severity in Asia-Africa using Multi-source Remote Sensing Time-series data. *IEEE Journal of Selected Topics in Applied Observations and Remote Sensing*. doi: 10.1109/JSTARS.2021.3104936.
- 2020 Huang, X., Li, Z., Jiang, Y., Li, X., & Porter, D. (2020). Twitter reveals human mobility dynamics during the COVID-19 pandemic. *PLOS ONE*, 15(11), e0241957.
- Huang, X.†, Li, Z., Lu, J., Wang, S., Wei, H., & Chen, B. (2020). Time-series clustering for home dwell time during COVID-19: what can we learn from it?. *ISPRS International Journal of Geo-Information*, 9(11), 675.
- Huang, X.†, & Wang, C. (2020). Estimates of exposure to the 100-year floods in the conterminous United States using national building footprints. *International Journal of Disaster Risk Reduction*, doi: 10.1016/j.ijdrr.2020.101731.
- Huang, X., Wang, C., Li, Z., & Ning, H. (2020). A 100 m population grid in the CONUS by disaggregating census data with open-source Microsoft building footprints. *Big Earth Data*, 10.1080/20964471.2020.1776200.
- Xu, D., Huang, X., Li, Z., & Li, X. (2020). Local Motion Simulation using Deep Reinforcement Learning, *Transactions in GIS*, doi: 10.1111/tgis.12620.
- Ning, H., Huang, X., Wang, C., & Li, Z. (2020). Detection new building construction in urban areas based on images of small unmanned aerial system. *Papers in Applied Geography*, doi: 10.1080/23754931.2019.1707108.
- Zhang, R., Shao, Z., Huang, X., Wang, J., & Li, D. (2020). Object Detection in UAV Images via Global Density Fused Convolutional Network. *Remote Sensing*, 12(19), 3140.
- Lu, J., Carbone, G. J., Huang, X., Lackstrom, K., & Gao, P. (2020). Mapping the sensitivity of agriculture to drought and estimating the effect of irrigation in the United States, 1950–2016. *Agricultural and Forest Meteorology*, 292, 108124.
- 2019 Huang, X.†, Wang, C. Lu, J., & Ning, H. (2019). Understanding spatiotemporal development of human settlement in hurricane-prone areas on U.S. Atlantic and Gulf Coasts using nighttime remote sensing, *Natural Hazards and Earth System Sciences*, doi: 10.5194/nhess-19-2141-2019.
- Huang, X.†, Wang, C. Li, Z., & Ning, H. (2019). Identifying disaster related social media for rapid response: a visual-textual fused CNN architecture. *International Journal of Digital Earth*, doi: 10.1080/17538947.2019.1633425.

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- 2018 Huang, X.[†], Wang, C., Li, Z., & Ning, H. (2018). A visual-textual fused approach to automated tagging of flood-related tweets during a flood event. *International Journal of Digital Earth*, doi: 10.1080/17538947.2018.1523956.
- Huang, X.[†], Wang, C., & Li, Z. (2018). Reconstructing flood inundation probability by enhancing near real-time imagery with real-time gauges and tweets. *IEEE Transactions on Geoscience and Remote Sensing*, 56(8), 4691-4701.
- Huang, X.[†], Wang, C., & Li, Z. (2018). A near real-time flood-mapping approach by integrating social media and post-event satellite imagery. *Annals of GIS*, 24(2), 113-123.
- Wang, C., Li, Z., & Huang, X. (2018). Geospatial Assessment of Wetness Dynamics in the October 2015 SC Flood with Remote Sensing and Social Media. *Southeastern Geographer*, 58(2), 164-180.
- Li, H., Wang, C., Huang, X., & Hug, A. (2018). Spatial Assessment of Water Quality with Urbanization in 2007–2015, Shanghai, China. *Remote Sensing*, 10(7), 1024.

Book Chapters (#5)

- 2021 Huang, X., Zhang, R., Li, X., Dadashova, B., Zhu, L., Zhang, K., Li, Y., & Shen, B. “Health-based geographic information system for mapping and risk modeling of infectious diseases and COVID-19 to support spatial decision making”. In *Translational Informatics -Prevention and Treatment of Viral Infections* (In press).
- Huang, X., Wang, S., Li, X., & Tullis, J. “The inequities in the U.S. exposed by the COVID-19 pandemic”. In *Geospatial Stories of the Global COVID-19 Pandemic*. Springer Nature (In press).
- Huang, X., Li, X., Yang, D., Zou, L. & Tullis, J. Challenges and opportunities of crowdsourcing geospatial data in Earth and human observations. In *GeoInformatics for Geosciences Advanced Geospatial Analysis using RS, GIS & Soft Computing* (In press)
- Young, S. G., Datta, J., Kar, B., Huang, X., Williamson, M. D., Tullis, J. A. & Cothren, J. “Challenges and limitations of geospatial data and analyses in the context of COVID-19”. In *Mapping COVID-19 in Space and Time* (pp. 65-76). Springer, Cham, doi: 10.1007/978-3-030-72808-3_8.
- 2020 Huang, X., Wang, C., Li, Z., & Ning, H. A visual–textual fused approach to automated tagging of flood-related tweets during a flood event. In *Social Sensing and Big Data Computing for Disaster Management*. Routledge, doi: 10.4324/9781003106494-4.

Peer Reviewed Conference Proceedings (#5)

- 2021 Wang, J., Shao, Z., Huang, X., Lu, T., Zhang, R. & Wang, Z. (2021). Unsupervised Remote Sensing Super-Resolution via Migration Image Prior. *IEEE International Conference on Multimedia and Expo (ICME) 2021*. 10.1109/ICME51207.2021.9428093.
- Wang, J., Shao, Z., Huang, X., Lu, T. & Zhang, R. (2021). Pan-sharpening via high-pass modification convolutional neural network. *IEEE International Conference on Image Processing (ICIP)* (In production).
- 2020 Huang, X.[†], Xu, D., Li, Z., & Wang, C. (2020). Translating multispectral imagery to nighttime imagery via conditional generative network. *2019 IEEE International Geoscience and Remote Sensing Symposium, Waikoloa, HI, USA, 2020*, pp. 6758-6761, doi: 10.1109/IGARSS39084.2020.9323669.

CURRICULUM VITAE

- 2019 [Huang, X.[†]](#), Wang, C., & Li, Z. (2019). Linking picture with text: tagging flood relevant tweets for rapid flood inundation mapping. *Proceedings of the International Cartographic Association*, 2, 45, doi: 10.5194/ica-proc-2-45-2019.
- [Huang, X.[†]](#), Wang, C., & Li, Z. (2019). High-Resolution Population Grid in the CONUS using Microsoft Building Footprints: A Feasibility Study. *Proceedings of the 3rd ACM SIGSPATIAL Workshop on Geospatial Humanities*, doi: 10.1145/3356991.3365469.
- [Huang, X.[†]](#), & Wang, C. (2019). Human settlement dynamics in hurricane-prone zones of CONUS: view from nighttime remote sensing perspective. 2019 IEEE International Geoscience and Remote Sensing Symposium, doi: 10.1109/IGARSS.2019.8899106.

Other Publications (#3)

- 2020 [Huang, X.[†]](#) (2020). Remote Sensing and Social Sensing for Improved Flood Awareness and Exposure Analysis in the Big Data Era. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/585>.
- 2019 [Huang, X.[†]](#) (2019). The fusion of remote sensing and social sensing in rapid flood mapping: motivation, opportunities and challenges, U.S. National Report (U.S. National Committee for the International Cartographic Association): <https://cartgis.org/usnc-ica/us-national-report/>.
- 2017 [Huang, X.[†]](#) (2017). A Future Energy Harvesting Scenario for Georgia Tech Campus Using Photovoltaic Solar Panels and Piezoelectric Materials. MS-GIST Capstone Paper, Georgia Institute of Technology.

AWARDS, GRANTS, AND SCHOLARSHIPS

External Grants

- Pending Russell Sage Foundation, Trustee Grants, Program: Social, Political, and Economic Inequality. PI (with Co-PIs Bo Zhao and Rui Liu). Project: *Assessing the transition in social/spatial fabrics and the uneven impact of COVID-19 on vulnerable populations and businesses via big geospatial data (\$175,000)*
- 2021 NASA SMD Computational and Information Sciences and Technology Office. Co-PI (with PI Di Yang). Project: *Assessing and Qualifying Citizen Science Labeling for Training Data for GLOBE Observer Mosquito and Land Cover Protocols Improving Data Quality within the GLOBE Observer Community (\$93,824)*
- 2021 NASA EPSCoE Research Infrastructure Development (RID). Co-PI (with PI Yaqian He and Co-PI Matthew Connolly). Project: *Quantifying impacts of irrigation and the consequent climate variability on crop yield in North Arkansas. (\$40,000)*
- 2019 Travel Grant, Japan Local Organizing Committee to the International Cartographic Association, for the participation in the bi-annual International Cartographic Conference (ICC 2019). (¥100,000)
- Travel Grant, U.S National Committee (USNC) to the International Cartographic Association, for the participation in the bi-annual International Cartographic Conference (ICC 2019). (\$2000)

Internal Grants

- 2019 The SPARC Graduate Research Grant, sponsored by the Office of the Vice President for Research, University of South Carolina. Co-PI. Funded project: *A Deep Learning Supported Flood Mapping Framework that Integrates Remote Sensing and Social Sensing. (\$5000)*

CURRICULUM VITAE

Teaching Resource Development Grant, Center for Teaching Excellence, University of South Carolina. (\$750)

Awards, Honors, and Fellowships

- 2019 Second Place in Student Paper Competition, the 42nd of the Applied Geography Conference, Charlotte, NC, October 23-25.
Breakthrough Graduate Scholar, University of South Carolina.
The Paul E. Lovingood Graduate Research Award.
Second Place in Robert Raskin Student Paper Competition, American Association of Geographers (AAG) Cyberinfrastructure Specialty Group (CISG), Washington, DC, April 3-April 7.
- 2018 Second Place in Remote Sensing Specialty Group (RSSG) Student Paper Competition, American Association of Geographers (AAG), New Orleans, LA, April 10-April 14.
- 2017 First Place Student Paper Award, the 25th International Conference on GeoInformatics, Buffalo, OH, August 3.
- 2013 National Second-Class Scholarship, Wuhan University (WHU). (\$500)
- 2012 National Second-Class Scholarship, Wuhan University (WHU). (\$500)

CONFERENCES

Selected Oral Presentations (* for presenting author)

- 2022 Huang, X.*. 2021. *Sensing population distribution from satellite imagery via deep learning: model selection, neighboring effect, and systematic biases*, American Association of Geographers (AAG) Annual Meeting, New York City, NY, February 25-March 1 (forthcoming).
- 2021 Wang, S.* , Liu, Y, Li, Z., Huang, X., & Hu, T. 2021. *The impact of the COVID-19 pandemic on mental health in Australia: spatial disparity, social inequity, and unbalanced healthcare access*. The Regions, Economy and Society in the Post-COVID World Online Conference, Cambridge Journal of Regions, Economy and Society, September 17.
- Sharman, G. *, Johnson, I., Huang, X., & Szymanski, E. Predicting sand mineralogy within cordilleran orogenic systems: machine learning applied to a global database of modern-pleistocene sand samples. 2021 Geological Society of America Annual Conference, Portland, OR, October 10-13.
- Wang S.* , Wang, R., Huang, X., & Li, Z. 2021. *An analytical framework to evaluate the effect of COVID-19 on the restaurant industry: a study of New York City*. International Symposium on Geospatial Approaches to Combating Covid-19, Florence, Italy, December 13-14.
- Huang, X.*. 2021. *COVID-19 exposes the long-standing social inequity issues in the U.S.*, Symposium on Human Dynamics Research: Emerging Urban-Geo Big Data in Transportation Research, American Association of Geographers (AAG) Annual Meeting, April 11 (virtual).
- Wang, S. *, Noland, R., & Huang, X. 2021. *Does ridersourcing provide equitable accessibility?*. 2021 Association of Collegiate Schools of Planning (ACSP) Annual Conference, Miami, FL, October 7-9.

CURRICULUM VITAE

- Sharman, G. *, Johnson, I, Huang, X., & Syzmanski, E. 2021. *Predicting sand mineralogy within Cordilleran orogenic systems: Machine learning applied to a global database of modern-Pleistocene sand samples*. 2021 Geological Society of America Annual Conference, Portland, OR, October 10-13.
- Johnson, I. *, Sharman, G., Huang, X., & Syzmanski, E. 2021. *Machine learning applied to petrographic database: introducing the global prediction of sand mineralogy (GloPrSM)*. 2021 Geological Society of America Annual Conference, Portland, OR, October 10-13.
- Wang, S. *, Noland, R., & Huang, X (invited). 2021. *Does ridersourcing provide equitable accessibility?*. Invited presentation at the 2021 World Symposium on Transport and Land Use Research (WSTLUR) conference, August 9-13 (virtual).
- 2020 Huang, X.*, Xu, D., Li, Z., & Wang, C. 2020. *Translating multispectral imagery to nighttime imagery via conditional generative adversarial network*. 2020 IEEE International Geoscience and Remote Sensing Symposium, Waikoloa, Hawaii, USA, July 19 - July 24 (virtual).
- 2019 Huang, X.* (invited panelist). 2019. *Deep learning in social media retrieval for rapid flood mapping*. U.S. Geological Survey: leveraging Crowdsourcing, Citizen Science, and Social Media to Produce Volunteer Geographic Information (VGI) for Hazard Science, Disaster Research, and Emergency Management, D.C, April 6.
- Huang, X.* (invited speaker). 2019. *Combining virtual geographic environment and fieldwork to promote efficient learning in Geography*. Oktoberbest: A Celebration of Teaching, UoSC Russell House, October 18.
- Huang, X.*, & Wang, C. 2019. *Social media data mining in supporting rapid flood inundation mapping*. The 74th Annual Meeting of SouthEastern Division of the American Association of Geographers, Wilmington, NC, November 24 - 25.
- Huang, X.*. 2019. *Generating population grid in the CONUS by disaggregating census population with Microsoft building footprints*. The 74th Annual Meeting of SouthEastern Division of the American Association of Geographers, Wilmington, NC, November 24 - 25.
- Huang, X.*, Wang, C., & Li, Z. 2019. *High-Resolution Population Grid in the CONUS using Microsoft Building Footprints: a feasibility study*. The 3rd ACM SIGSPATIAL Workshop on Geospatial Humanities, Chicago, IL, November 5 - 8.
- Huang, X.*. 2019. *A high-resolution population grid in the CONUS based on Microsoft building footprints and its potentials in hazard studies*. Applied Geography Conference, Charlotte, NC, October 23 - 25.
- Huang, X.*, Wang, C., & Li, Z. 2019. *Linking picture with text: tagging flood relevant tweets for rapid flood inundation mapping*, 2019 International Cartographic Conference, Tokyo, Japan, July 15 - 20.
- Huang, X.*, Li, Z, & Wang, C. 2019. *Identifying disaster related social media for rapid response: a visual-textual fused approach*, AAG Annual Meeting, AAG Cyberinfrastructure Specialty Group (CISG), DC, April 3 - 7.
- Wang, C.*, Morgan, G., Hodgson, M., Huang, X. 2019. *Drone based 3D Tree Structure Surveying on Earth Dams to Assist Dam Safety*. The 74th Annual Meeting of SouthEastern Division of the American Association of Geographers, Wilmington, NC, November 24 - 25.

CURRICULUM VITAE

- 2018 Wang, C.*, & Huang, X. 2018. *Integration of social sensing and remote sensing for situation awareness of coastal floods*. The 3rd Conference of Digital Belt and Road (DBAR), Tengchong, Yunnan Province, China, December 5 - 7.
- Wang, C.*, & Huang, X. 2018. *Rapid flood inundation mapping via integrated social sensing and Earth sensing*. 2018 SEDAAG Annual Meeting, Johnson City, TN, November 8 - 19.
- Wang, C.*, & Huang, X. 2018. *Rapid flood inundation reconstruction by integrating social media and satellite imagery*. Applied Geography Conference, Kent, OH, October 31 – November 2.
- Huang, X.*, Wang, C., & Li, Z. 2018. *Reconstructing flood inundation probability by enhancing near real-time imagery with real-time gauges and tweets*, AAG Annual Meeting, Remote Sensing Specialty Group (RSSG), New Orleans, LA, April 13.
- 2017 Huang, X.*, Wang, C., & Li, Z. 2017. *A near real-time flood mapping approach by integrating social media and post-event satellite imagery*, The 25th International Conference on GeoInformatics, Buffalo, OH, August 3.

MEDIA COVERAGE

- 2021 Article titled “*Staying at Home Is a Privilege: Evidence from Fine-Grained Mobile Phone Location Data in the United States during the COVID-19 Pandemic*” published on the Annals of American Association of Geographers has been covered by more than 20 news outlets. Some selected media outlets are listed below:
- **Taylor & Francis Breaking research**, “Data from 45 million mobile users further confirms poorer communities less able to follow ‘stay at home’ COVID rules”, <https://newsroom.taylorandfrancisgroup.com/data-from-45-million-mobile-users-further-confirms-poorer-communities-less-able-to-follow-stay-at-home-covid-rules/>
 - **METRO**, “Poor people more likely to be forced to ignore stay-at-home orders than the rich”, <https://metro.co.uk/2021/06/02/poorer-citizens-broke-lockdown-more-frequently-smartphone-data-shows-14699764>.
 - **Medical News**, “Low-wage earners could not afford to comply with stay-at-home orders during lockdown”, <https://www.news-medical.net/news/20210602/Low-wage-earners-could-not-afford-to-comply-with-stay-at-home-orders-during-lockdown.aspx>
 - **Verywell-health**, “Study: Stay-at-Home COVID Orders Were a Luxury Many Couldn't Afford”, <https://www.verywellhealth.com/stay-at-home-orders-low-income-covid19-5187273>
 - **Medical press**, “Data from 45 million mobile users further shows poorer people less able to stay at home COVID rules”, <https://medicalxpress.com/news/2021-05-million-mobile-users-poorer-people.html>
 - **Big News Network**, “Poorer people less able to stay at home amid COVID-19”, <https://www.bignewsnetwork.com/news/269666910/poorer-people-less-able-to-stay-at-home-amid-covid-19>
- 2019 Research highlight by the Spatial Analysis and Modeling Specialty Group (SAM) in American Association of Geographers, “*100-year Flood Exposure in the Conterminous United States Using National Building Footprints*”.
https://docs.wixstatic.com/ugd/4a5b75_9434b078133b45e0b5dba453e075fe40.pdf

CURRICULUM VITAE

Research highlight by the Hazards, Risks, and Disaster Specialty Group (HRD) in the American Association of Geographers: “Human settlement in hurricane-prone areas”.
https://docs.wixstatic.com/ugd/4a5b75_2b88057e41c9489483088b79018751a7.pdf

Research highlight by the Applied Geography Specialty Group (AGSG) in the American Association of Geographers, “*Human Settlement in Hurricane-Prone Zones is Revealed by Nighttime Remote Sensing*”.
https://docs.wixstatic.com/ugd/4a5b75_2c6511375189498ba6287fc53af0f18c.pdf

Research highlight by the Cyberinfrastructure Specialty Group (CISG) in American Association of Geographers, “*Visual-textual fused CNN architecture for rapid disaster related social media retrieval*”.
https://docs.wixstatic.com/ugd/4a5b75_cca08cb9c381485eb9fac8bc32f341f0.pdf

INVITED TALKS

- 2021 *Home-dwelling time pattern mining based on optimized Random Forest algorithm*. Research seminar invited by Beijing University, Wuhan University (Geocomputation Center for Social Science), and East China University of Science and Technology (Lab for Urban and Regional Analysis), July 15 (virtual).
- The disparity in home-dwelling time during the COVID-19 pandemic in the U.S.* Joint Seminar invited by University of Maryland, Texas A&M University & University of Tennessee Transportation Engineering and Science Student Chapter, June 10 (virtual).
- SafeGraph Social Distancing Metrics for COVID-19 Studies*. Invited by the Mobility Research Group of the China Data Lab and the Geo-computation Center for Social Sciences, Wuhan University, May 7 (virtual).
- COVID-19 reveals the social inequity issue in the U.S.* Research Showcase invited by Placekey, May 21 (virtual).
- Sensing Population Distribution from Satellite Imagery via Deep Learning: Model Selection, Neighboring Effects, and Systematic Biases*. GIScience Symposium Series No. 5 GeoAI, invited by Peking University, Institute of Geographic Sciences and Natural Resources Research (CAS), and Beijing Normal University, April 16 (virtual).
- Disparity in compliance with social distancing policies during the COVID-19 pandemic: evidence from fine-grained mobile phone data*. Guest lecture for the Department of Geography, University of Utah, April 21 (virtual).
- 2020 *Big mobility data reveal the luxury nature of social distancing and stay-at-home orders in the U.S. during the COVID-19 pandemic*. Research Seminar invited by Geoinsider, December 17 (virtual).
- Twitter and Disasters*. Guest speaker, invited by Texas A&M University Chinese School, November 14 (virtual).
- Does social inequity stand in the way of the effective implementation of stay-at-home orders?*. Seminar presenter invited by SafeGraph, November 12 (virtual).
- Big Geospatial Data in Assisting Disaster Assessment*. Research Colloquium, University of Arkansas, AR, February 14.

CURRICULUM VITAE

- 2019 *Sensing and Improving Rapid Flood Mapping through Social Media Data Mining*. Fall research seminar series in School of City & Regional Planning, Georgia Institute of Technology, Atlanta, GA, September 27.

TEACHING EXPERIENCE

University of Arkansas

- 2022 *Introduction to Geodatabases (GEOS 3593/5593)*
Course evaluation (out of 5): 2022 Spring: N/A

Seminars in GIS (GEOS 5973)
Course evaluation (out of 5): 2022 Spring: N/A
- 2021 *Geospatial Technologies Computational Toolkit (GEOS 3103)*
Course evaluation (out of 5): 2021 Spring: N/A; 2021 Fall: N/A

University of South Carolina

- 2017-2018 *Geographic Information Systems (GEOG 363)*
Course evaluation (out of 5): 2018 Fall: 4.96

The Digital Earth (GEOG 105)
Course evaluation (out of 5): 2019 Fall: N/A; 2018 Summer: 5.0; 2018 Spring: 4.78; 2017 Fall: 4.73

SERVICE

Served on Professional Committees

- 2021 Program Committee Member, the 4th ACM SIGSPATIAL International Workshop on AI for Geographic Knowledge Discovery (GeoAI 2021), Beijing, China, November 5, 2021.

Award committee member, student paper competition, The 28th International Conference on Geoinformatic, Nanchang, Jiangxi Province, China, November 3-5.

Program Committee Member, the 4th ACM SIGSPATIAL International Workshop on Advances on Resilient and Intelligent Cities (ARIC 2021), Beijing, China, November 5, 2021.
- 2020 Program Committee Member, the 3rd ACM SIGSPATIAL International Workshop on Advances in Resilient and Intelligent Cities (ARIC 2020), Seattle, Washington, November 3, 2020

Organized Conference Sessions and Symposiums

- 2022 Chair, Symposium on *Human Dynamics Research: Urban computational paradigms with shareable data, models, tools, and frameworks*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

Organizer, Symposium on *Human Dynamics Research: Advances in geo-big data in urban informatics*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

Organizer, *Harnessing mobility data for spatial knowledge discovery: recent advances and challenges*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

CURRICULUM VITAE

Organizer, Symposium on *Human Dynamics Research: Human mobility in the Big Data era I*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

Organizer, Symposium on *Human Dynamics Research: Human mobility in the Big Data era II*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

Organizer, *GeoAI: Intelligent Geospatial Analytics*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

Organizer, Symposium on *Data-Intensive Geospatial Understanding in the Era of AI and CyberGIS*, 2022 Annual Meeting of American Association of Geographers, New York City, NY, February 25-March 1.

2021 Co-Chair, Spatial and Temporal Thinking in Data-Driven Method: *Big Human Mobility Data and Urban Segregation*. Spatial Data Science Symposium, December 13-14, 2021 (virtual)

Organizer, Symposium on *Human Dynamics Research: Emerging Urban-Geo Big Data in Transportation Research*, 2021 Annual Meeting of American Association of Geographers, Seattle, WA, April 7-11.

2019 Chair, Special Session: *Remote Sensing and Social Sensing for Improved Disaster Monitoring*. The 74th Annual Meeting of the Southeastern Division of the American Association of Geographers, Wilmington, NC, November 24-25

Public Outreach

2014 Local volunteer reception, Wuhan local reception committee of *Association internationale des étudiants en sciences économiques et commerciales* (AIESEC) global volunteer program, Wuhan, China, June 10 - August 10.

2013 International volunteer, *Association internationale des étudiants en sciences économiques et commerciales* (AIESEC) global volunteer program, Egypt, Africa, June 16 - August 3.

International volunteer, *Association internationale des étudiants en sciences économiques et commerciales* (AIESEC) global volunteer program, Tunisia, Africa, May 15 - June 15.

Student investigator, Lake Management and Protection Program, Wuhan, Hubei Province, China. March 15 - September 27.

Editorial Board

Frontiers Remote Sensing (Review Editor) (2020-present)

Big Earth Data (Topic Editor) (2020-present)

Computational Urban Science (Associate Editor) (2020-present)

International Journal of Digital Earth (Editorial Board Member) (2021-present)

Reviewer Board

Sustainability (2020-present)

Organized Journal Special Issues

2021 *Computational Urban Science: Promoting Urban Computational Paradigms with Shareable Data, Models Tools, and Frameworks*.

CURRICULUM VITAE

International Journal of Environmental Research and Public Health: Spatial Analytics for COVID-19 Studies.

Frontiers in Future Transportation: Emerging Urban-Geo Big Data in Transportation Research.

Departmental and School Services

- 2021 Search Committee, Department of Geosciences, University of Arkansas
Graduate Committee, Department of Geosciences, University of Arkansas
Award Committee, Department of Geosciences, University of Arkansas
Recruiting and Retention Committee, Department of Geosciences, University of Arkansas
- 2019 Discover USC Reviewer, Office of the Vice President for Research, University of South Carolina.
- 2018 Thinking Globally Ambassador, International Student Service, University of South Carolina.
Organizing committee, Geography Professional Development Workshop, University of South Carolina.
- 2017 Organizing committee, 2017 GIS day, University of South Carolina.

Advised Students

- Jingjing Yan, Ph.D, University of Arkansas (committee member) (2021-now)
Jah Johnson, M.S., University of Arkansas (committee member) (2021-now)
Jack Fekete, Ph.D., University of Arkansas (committee member) (2021-now)
Madison Worthy, M.S., University of Wyoming (committee member) (2021 -now)
Sierra Guzman, M.S., University of Wyoming (committee member) (2021-now)
Yunhe Cui, Ph.D., University of Connecticut (committee member) (2021-now)

Journal Reviews (Year [Times])

- Annals of American Association of Geographers (2020[2])
Annals of GIS (2020 [4], 2021[2])
Applied Geography (2020 [4])
Applied Sciences (2020[2])
Big Earth Data (2020[2],2021[1])
Cities (2021[2])
Computational Urban Science (2021[10])
Environmental Pollution (2021[1])
Environment and Planning B: Urban Analytics and City Science (2021[1])
Geo-spatial Information Science (2020[1], 2021[2])
Future Generation Computer Systems (2021[1])
Health & Place (2021[2])
Health Policy (2021[1])
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (2020 [1])
IEEE Transactions on Geoscience and Remote Sensing (2020 [3])
Information Processing and Management (2021[1])
International Journal of Applied Observation and Geoinformation (2021[1])

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International Journal of Digital Earth (2018[4], 2020[2], 2021[8])
International Journal of Geographical Information Science (2021[3])
ISPRS International Journal of Geo-Information (2021[1])
Journal of ambient intelligence and humanized computing (2020 [3])
Journal of Flood Risk Management (2021 [1])
Journal of ICT Research and Applications (2021[1])
Papers in Applied Geography (2019[3])
Photogrammetric Engineering and Remote Sensing (2020[1], 2021[6])
PLOS ONE (2020 [4], 2021[8])
Remote Sensing Applications: Society and Environment (2021[1])
Remote Sensing (2021[1])
Scientific Reports (2021[3])
Soft Computing (2021[1])
Spatial and Spatio-temporal Epidemiology (2021[1])
Sustainability (2021[1])
Transactions in GIS (2020[2], 2021[1])
Water (2021[2])
Health Data Science (2021[1])

Conference Proceeding Reviews (Year [Times])

AAAI Conference on Artificial Intelligence (2021[8])
GeoAI'21 (The 4th International Workshop on AI for Geographic Knowledge Discovery) (2021[3])

Scholarly/Professional Organizations

Institute of Electrical and Electronics Engineers (IEEE) member (2018-present).
American Association of Geographers (AAG) member (2017-present).
Southeastern Division of the American Association of Geographers (SEDAAG) member (2017-2019).
International Association of Chinese Professional in Geographic Information Sciences (CPGIS) member (2017-present).
American Geographic Society (AGS) member (2017-2018).

Xiao Huang