

SHENGJIE LIU

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| CONTACT INFORMATION | sjliu.me@gmail.com, or liusheng@usc.edu 3616 Trousdale Pkwy, AHF B55, Los Angeles, CA 90089 | |
| EDUCATION | University of Southern California PhD in Population, Health and Place 2021 – Present | Los Angeles, California, USA |
| | Sun Yat-Sen University BS in Geographic Information Science Conferred 2019 | Guangzhou, China |
| EMPLOYMENT | The University of Hong Kong Research Assistant, Department of Physics | Pokfulam, Hong Kong 2019 – 2021 |
| MANUSCRIPTS UNDER REVIEW | <p>Liu, S., A.-M. Wu, H.C. Ho. “Spatial variability of diurnal temperature range and its associations with local climate zone, neighborhood environment and mortality in Los Angeles.” Submitted to <i>Urban Climate</i>, under review.</p> <p>Liu, S., So C.W., H.C. Ho, Q. Shi, and C.S.J. Pun. “Using high-resolution nighttime remote sensing data to identify light sources in Hong Kong.” Submitted to <i>IGARSS 2023</i>, under review.</p> <p>Liu, S., So C.W., X.F. Foo, and C.S.J. Pun. “Using multi-source data to capture the impacts of Earth Hour 2021.” Submitted to <i>IGARSS 2023</i>, under review.</p> | |
| REFERRED JOURNAL PUBLICATIONS | <ol style="list-style-type: none">7. Kyba, C.C.M., M. Aubé, S. Bará, A. Bertolo, C.A. Bouroussis, S. Cavazzani, B.R. Espey, F. Falchi, G. Gyuk, A. Jechow, M. Kocifaj, Z. Kolláth, H. Lamphar, N. Levin, S. Liu, S.D. Miller, S. Ortolani, C.S.J. Pun, S.J. Ribas, T. Ruhtz, A.S. de Miguel, M. Schneider, R.M. Shrestha, A. Simoneau, C.W. So, T. Storch, K.P. Tong, M. Tuñón, D. Turnshek, K. Walczak, J. Wang, Z. Wang, and J. Zhang. “Multiple Angle Observations Would Benefit Visible Band Remote Sensing Using Night Lights.” <i>Journal of Geophysical Research: Atmospheres</i>, 127, e2021JD036382, 2022.6. Liu, S., Z. Zhou, H. Ding, Y. Zhong, and Q. Shi. “Crop Mapping Using Sentinel Full-Year Dual-Polarized SAR Data and a CPU-Optimized Convolutional Neural Network With Two Sampling Strategies.” <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i>, 14, pp. 7017-7031, 2021.5. Liu, S., Q. Shi, and L. Zhang. “Few-shot hyperspectral image classification with unknown classes using multitask deep learning.” <i>IEEE Transactions on Geoscience and Remote Sensing</i>, 59(6), pp. 5085-5102, 2021.4. Liu, S., H. Luo, and Q. Shi. “Active Ensemble Deep Learning for Polarimetric Synthetic Aperture Radar Image Classification.” <i>IEEE Geoscience and Remote Sensing Letters</i>, 18(9), pp. 1580-1584, 2021.3. Liu, S., and Q. Shi. “Local climate zone mapping as remote sensing scene classification using deep learning: A case study of metropolitan China.” <i>ISPRS Journal of Photogrammetry and Remote Sensing</i>, 164, pp. 229-242, 2020.2. Liu, S., and Q. Shi. “Multitask Deep Learning With Spectral Knowledge for Hyperspectral Image Classification.” <i>IEEE Geoscience and Remote Sensing Letters</i>, 17(12), pp. 2110-2114, 2020. | |

REFERRED
CONFERENCE
PROCEEDINGS

1. **Liu, S.**, Z. Qi, X. Li, and A.G.-O. Yeh. "Integration of Convolutional Neural Networks and Object-Based Post-Classification Refinement for Land Use and Land Cover Mapping with Optical and SAR Data." *Remote Sensing*, 11(6), p.690, 2019.
4. **Liu, S.**, and Q. Shi. "Estimating PM2.5 and PM10 on Zhuhai-1 Hyperspectral Imagery." *Proceedings of IEEE International Geoscience and Remote Sensing Symposium IGARSS*, 2022, pp. 5933-5936.
3. **Liu, S.**, C.W. So, and C.S.J. Pun. "Analyzing Long-Term Artificial Light at Night Using Viirs Monthly Product with Land Use Data: Preliminary Result of Hong Kong." *Proceedings of IEEE International Geoscience and Remote Sensing Symposium IGARSS*, 2021, pp. 6821-6824.
2. **Liu, S.**, and Q. Shi. "Multi-Label Local Climate Zone Mapping as Scene Classification Using Very High Resolution Imagery: Preliminary Result of Hong Kong." *Proceedings of IEEE International Geoscience and Remote Sensing Symposium IGARSS*, 2021, pp. 6809-6812.
1. **Liu, S.**, H. Luo, Y. Tu, Z. He, and J. Li. "Wide Contextual Residual Network with Active Learning for Remote Sensing Image Classification." *Proceedings of IEEE International Geoscience and Remote Sensing Symposium IGARSS*, 2018, pp. 7145-7148.

CONFERENCE
ABSTRACTS

- presenter marked with *
6. **Liu, S.***, C.W. So, H.C. Ho, Q. Shi, C.S.J. Pun. "Disproportionate distribution of artificial light at night in Hong Kong: evidence from space with high-resolution nighttime remote sensing." In *Advanced Urban Remote Sensing Workshop*, December 2022, HKSAR, China.
 5. Pun, C.S.J., C.W. So*, **S. Liu**, L. Canas, C.E. Walker, and S.L. Cheung. "Measurement of cloud amplification effect over a wide range of night sky brightness observations with the GaN-MN." In *LPTMM - Light Pollution Theory Modeling and Measurement*, June 2022, Santiago de Compostela, Galicia, Spain.
 4. Pun, C.S.J., C.W. So, and **S. Liu***. "Analyzing the Sources and Variations of Night Lights Between 2012 and 2019 in Hong Kong from VIIRS Monthly Products." In *LPTMM - Light Pollution Theory Modeling and Measurement*, June 2022, Santiago de Compostela, Galicia, Spain.
 3. **Liu, S.***, C.W. So, and C.S.J. Pun. "The relationship between night sky brightness and remote sensing data: Preliminary result from Luojia-1 and the International Space Station." In *7th International Conference on Artificial Light at Night (ALAN)*, June 2021, Lleida, Catalonia, Spain.
 2. So, C.W.*, N.Y.J. Chang, **S. Liu**, L. Canas, C.E. Walker, S.L. Cheung, and C.S.J. Pun. "A Multinational Study of Night Sky Brightness Patterns: Preliminary Results from the Globe at Night – Sky Brightness Monitoring Network (GaN-MN) of the Study of Cloud Amplification on NSB." In *7th International Conference on Artificial Light at Night (ALAN)*, June 2021, Lleida, Catalonia, Spain.
 1. Pun, C.S.J.*, C.W. So, N.Y.J. Chang, **S. Liu**, L. Canas, C.E. Walker, and S.L. Cheung. "A Multinational Study of Night Sky Brightness Patterns: Preliminary Results from the Globe at Night – Sky Brightness Monitoring Network (GaN-MN)." In *6th International Conference on Artificial Light at Night (ALAN)*, June 2020, Lleida, Catalonia, Spain.

GUEST
LECTURE

Urban Heat Islands with Nighttime and Daytime Landsat Imagery
SSCI382 Geographic Information Science: Spatial Analytics
University of Southern California

Oct 2022

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| TEACHING | Lab Instructor and TA USC SSCI382 Geographic Information Science: Spatial Analytics | Spring 2023 |
| | Lab Instructor and TA USC SSCI220 Spatial Data Collection Using Drones | Spring 2023 |
| | Lab Instructor and TA USC SSCI165 Sustainability Science in the City | Fall 2022 |
| AWARDS & HONORS | USC Dornsife PhD Academy Scholarship, 485 USD | 2021 |
| | Orbita Hyperspectral Processing Paper Contest, 5000 CNY (714 USD) | 2019 |
| | IEEE IGARSS Student Travel Grant, 1650 USD | 2018 |
| | Scholarship of SYSU EMBA Alumni Association, 3000 CNY (428 USD) | 2018 |
| | National Undergraduate Innovative Project, 10,000 CNY (1428 USD) | 2018 |
| PROFESSIONAL SERVICE | Journal Reviewer | |
| | IEEE Geoscience and Remote Sensing Letters | |
| | IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing | |
| | IEEE Transactions on Geoscience and Remote Sensing | |
| | Knowledge-Based Systems | |
| | Pattern Recognition Letters | |
| | Remote Sensing Letters | |
| | Scientific Reports | |
| | Urban Climate | |
| | Membership | |
| | American Association of Geographers | |
| | American Society for Photogrammetry and Remote Sensing | |
| | IEEE Geoscience and Remote Sensing Society (GRSS) | |
| | IEEE GRSS Image Analysis and Data Fusion (IADF) Technical Committee | |