Liu, Shengjie Kris

Curriculum Vitae

University of Southern California
3616 Trousdale Pkwy, AHF B55
Los Angeles, CA 90089, USA
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Education and Academic Training

2021– **University of Southern California**, USA
Ph.D. in Population, Health and Place

2019–2021 **The University of Hong Kong**, Hong Kong
Research Assistant (Full-Time), Department of Physics

2015–2019 **Sun Yat-Sen University**, China
B.S. in Geographical Information Science (Remote Sensing Track)
- Thesis: Deep learning for land use and land cover classification

Journal Publications

5. **Shengjie Liu**, An-Min Wu, and Hung Chak Ho. Spatial variability of diurnal temperature range and its associations with local climate zone, neighborhood environment and mortality in Los Angeles. ***Urban Climate***, 49:101526, 2023

4. Christopher C. M. Kyba, Martin Aubé, Salvador Bará, Andrea Bertolo, Constantinos A. Bouroussis, Stefano Cavazzani, Brian R. Espey, Fabio Falchi, Geza Gyuk, Andreas Jechow, Miroslav Kocifaj, Zoltán Kolláth, Héctor Lamphar, Noam Levin, **Shengjie Liu**, Steven D. Miller, Sergio Ortolani, Chun Shing Jason Pun, Salvador José Ribas, Thomas Ruhtz, Alejandro Sánchez de Miguel, Mathias Schneider, Ranjay Man Shrestha, Alexandre Simoneau, Chu Wing So, Tobias Storch, Kai Pong Tong, Milagros Tuñón, Diane Turnshek, Ken Walczak, Jun Wang, Zhuosen Wang, and Jianglong Zhang. Multiple angle observations would benefit visible band remote sensing using night lights. ***Journal of Geophysical Research: Atmospheres***, 127(12):e2021JD036382, 2022

3. **Shengjie Liu**, Qian Shi, and Liangpei Zhang. Few-shot hyperspectral image classification with unknown classes using multitask deep learning. ***IEEE Transactions on Geoscience and Remote Sensing***, 59(6):5085–5102, 2020

2. **Shengjie Liu** and Qian Shi. Local climate zone mapping as remote sensing scene classification using deep learning: A case study of metropolitan China. ***ISPRS Journal of Photogrammetry and Remote Sensing***, 164:229–242, 2020

1. **Shengjie Liu**, Zhixin Qi, Xia Li, and Anthony Gar-On 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):690, 2019

Conference Proceedings

2. **Shengjie Liu**, Chu Wing So, Hung Chak (Derrick) Ho, Qian Shi, and Jason C.S. Pun. Using high-resolution nighttime remote sensing data to identify light sources in Hong Kong. In ***IGARSS 2023*** - *2023 IEEE International Geoscience and Remote Sensing Symposium*, 2023

1. **Shengjie Liu** and Qian Shi. Multi-label local climate zone mapping as scene classification using very high resolution imagery: Preliminary result of Hong Kong. In ***IGARSS 2021*** - *2021 IEEE International Geoscience and Remote Sensing Symposium*, pages 6809–6812, 2021

Awards and Honors

2023 USC Dornsife PhD Academy Scholarship, US$500
2022 USC Dornsife PhD Academy Scholarship, US$485
2020 Arctic Code Vault Contributor, GitHub
2019 Zhuhai Orbita Hyperspectral Data Processing Paper Contest, CN¥5,000 (US$714)
2018 IEEE IGARSS Student Travel Grant, US$1,650
2018 Scholarship of SYSU EMBA Alumni Association, CN¥3,000 (US$428)
2018 National Undergraduate Innovative Project, CN¥10,000 (US$1,428)

Guest Lecture

Oct 2022 **Urban Heat Islands with Nighttime and Daytime Landsat Imagery**
University of Southern California, SSCI-382 GIScience Spatial Analytics

Teaching

Spring 2023 **SSCI-382 GIScience Spatial Analytics**
Lab Instructor and Teaching Assistant, University of Southern California

Fall 2022 **SSCI-165 Sustainability Science in the City**
Lab Instructor and Teaching Assistant, University of Southern California

Journal Reviewer

- IEEE Geoscience and Remote Sensing Letters (2)
- IEEE J. of Selected Topics in Applied Earth Observations and Remote Sensing (14)
- IEEE Transactions on Geoscience and Remote Sensing (3)
- Knowledge-Based Systems (3)
- Pattern Recognition Letters (2)
- Remote Sensing Letters (3)
- Scientific Reports (2)
- Urban Climate (12)

Membership

- American Society for Photogrammetry and Remote Sensing
- IEEE Geoscience and Remote Sensing Society (GRSS)
- IEEE GRSS Image Analysis and Data Fusion (IADF) Technical Committee

Skills

Deep Learning Pytorch, Keras, TensorFlow
Python scikit-learn, pandas, geopandas, networkX, matplotlib
Coding Python, MATLAB, R, Julia, C/C++, IDL, HTML5, LaTeX
Software QGIS, ArcGIS, GeoDa, OriginLab, Gephi, ENVI, ESA-SNAP, eCognition