Yating Gu

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EDUCATION

Ph.D., The University of Hong Kong 2020.09-Present

University of Postgraduate Fellowship (UPF) and Postgraduate Scholarship (PGS) Holder

B.Eng., Remote Sensing Information Engineering, Wuhan University (First-honours**)** 2016.09-2020.06

RESEARCH EXPERIENCE

Multi-scale fundamental phenology mechanism in response to global climate change 2020.09-Present

- Construct the statistical models (bayesian hierarchical models) to deal with the big environmental dataset.
- Use Google Earth Engine (Javascript) and Rstudio to study the mechanistic controls of deciduous forests spring phenology across different ecosystems.

Hyperspectral Remote Sensing Image Processing Based on Deep Learning 2018.09-2019.09

- Hyperspectral image segmentation with deep learning models using TensorFlow (3D-CNN).
- Construct Chinese hyperspectral dataset using multi-source data fusion technology (e.g., ZY-3 multi-angle satellite image data).

High-Resolution Remote Sensing Image Scene Classification 2018.12-2019.05

- High-resolution remote sensing image scene understanding for efficient feature representation.
- Use hash learning for highly efficient deep learning models for scene classification.

Follow me: Indoor Navigation Based on Track Fingerprint 2018.03-2019.10

- Indoor navigation with mobile phone interior sensors (GPS algorithm development).
- 3D reconstruction for indoor scenery modeling.
- Divide fingerprint positioning into two stages to create indoor maps: fingerprint capture and fingerprint matching.

PUBLICATIONS

[1] **Gu, Y.**, Zhao, Y., Guo, Z., Meng, L., Zhang, K., Wang, J., ... & Wu, J*. (2023). The underappreciated importance of solar radiation in constraining spring phenology of temperate ecosystems in the Northern and Eastern United States. *Remote Sensing of Environment*, *294*, 113617. (**IF=13.5**)

[2] Zhao, Y., Lee, C. K., Wang, Z., Wang, J., **Gu, Y.**, Xie, J., ... & Wu, J. (2022). Evaluating fine-scale phenology from PlanetScope satellites with ground observations across temperate forests in eastern North America. *Remote Sensing of Environment*, *283*, 113310. (**IF=13.5**)

[3] Wang, J., Lee, C.K.F., Zhu, X., Cao, R., **Gu, Y.**, Wu, S., and Wu, J*. (2022). A new object-class based gap-filling method for PlanetScope satellite image time series. *Remote Sensing of Environment*, *280*, 113136. (**IF=13.5**)

[4] **Gu, Y.**; Wang, Y.; Li, Y. A Survey on Deep Learning-Driven Remote Sensing Image Scene Understanding: Scene Classification, Scene Retrieval and Scene-Guided Object Detection. *Applied Sciences*, *9*(10), 2110. (**Journal Highly Cited Paper**)

WORK EXPERIENCES

ENVS3202 Plant physiology and climate change 2020-2021Fall, 2021-2022Fall
Teaching Assistant

BIOL1309 Evolutionary diversity 2020-2021 Spring
Teaching Assistant

BIOL4302 Environmental impact assessment 2020-2021 Spring
Teaching Assistant

SCHOLARSHIPS&AWARDS

Scholarships for High Academic Achievement:

Hui Pun Hing Memorial Postgraduate Fellowships of HKU (~US$9,000)	2020.09
First-Class Scholarship for Outstanding Students of Wuhan University (**Top 5%**)	2017.09, 2018.09, 2019.09
Xia Jianbai Special Scholarship for Outstanding Students of Surveying and Mapping Science and Technology (**Top 5%**)	2017.09 2018.09
Zhonghaida Special Scholarship (**Top 5%**)	

Competition Awards:

American Mathematical Contest in Modeling (**Meritorious Winner-Top 6%**)	2019.02
China Undergraduate Mathematical Contest in Modeling (**First Prize in China**)	2018.09

Honorary Titles:

Merit student at Wuhan University (**Top 10%**)	2017.09, 2018.09, 2019.09