

LUO Junshen

Age:23, Male

(86) 176 2099 2816, luojsh7@mail2.sysu.edu.cn

<https://github.com/JeasunLok> ; <https://junshenluo.github.io>

NO. 132, Waihuan East Road, Guangzhou 510275, P. R. China

SUMMARY

Research Interest: My research is primarily focused on remote sensing images interpretations and applications, especially in very high resolution (VHR) mapping, multi-source remote sensing images fusion, coastal ecological remote sensing analysis and global change. Currently, I am engaged in research with remote sensing images interpretations with deep learning and geospatial big data analysis in global change.

Highlight: Four years of **GIS**, **RS** and **statistic** experience with a solid theoretical and practical background.

Core Courses:

Mathematics: Calculus: Part A (98), Part B (92); Linear Algebra (100); Probability and Statistic (99).

Major: Principles and Application of Remote Sensing (95); Remote Sensing Image Processing (97); Quantitative Remote Sensing (92); Hyperspectral Analysis (96); Photogrammetry (93); Mathematical Geography (94); Spatial Analysis and Application (90); Urban GIS (93); Machine Learning (95); Global Change (96); Literature Retrieval and Academic Writing (96); Special English (94).

Minor: Mathematical Analysis: Part A (92), Part B (87); Geometry and Algebra: Part A (90), Part B (88); College Physics (86); Nonparametric Statistic (86); Biostatistic (86); Applied Regression Analysis (85).

Language Proficiency: English (CET-4 600; CET-6 523)

EDUCATION

Sun Yat-sen University, School of Geography and Planning

Guangzhou, China

Bachelor of Science in Geographic Information Science / Major

Sep. 2020 – Jun. 2024

• **GPA :** 92 / 100 (1/29), 4.0 / 4.0 (1/29)

Sun Yat-sen University, School of Mathematics

Guangzhou, China

Bachelor of Science in Statistics / Minor

Sep. 2020 – Jun. 2024

• **GPA :** 87 / 100 (1/29), 3.9 / 4.0 (1/29)

Sun Yat-sen University, School of Geography and Planning

Guangzhou, China

Ph.D. Candidate in Cartography and Geographical Information System

Sep. 2024 – Present

PUBLICATIONS

• **Research on Hyperspectral Coastal Wetlands Classification | Team leader** Feb. 2023 – Jan. 2024

Pub: Luo J, He Z, Lin H, et al. Biscale Convolutional Self-Attention Network for Hyperspectral Coastal Wetlands Classification[J]. IEEE Geoscience and Remote Sensing Letters, 2024, 21: 1-5.

Methods: *mixture of self-attention and convolution, multi-scale remote sensing image classification*

• **Research on Hyperspectral Mangroves Change Detection | Team leader** Oct. 2024 – Present

Pub: Luo J, Li J, Chu X, et al. BTCNet: Bayesian Tile Attention Network for Hyperspectral Image Change Detection [J]. IEEE Geoscience and Remote Sensing Letters (Under Review)

Methods: *Bayesian prior knowledge, tile attention, ecology analysis*

- **Research on Abandoned Cropland Extraction | Team member** Nov. 2022 – Dec. 2023
Pub: Li H, Lin H, **Luo J**, et al. Fine-grained abandoned cropland mapping in southern china using pixel attention contrastive learning[J]. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2023, 17: 2283-2295.
Methods: *abandoned farmland extraction, VHR mapping, Contrastive Learning*

RESEARCH EXPERIENCE

- **National Innovative Training Project for College Students | Team leader** Dec. 2021 – Dec. 2022
Topic: Rural Space Shrinkage and its Transformation and Reconstruction Mechanism in Outflow Areas: Taking Shaoguan City as an Example
Methods: *abandoned farmland extraction, spatial analysis, field interview, push-pull theory*
- **Project on Guangzhou Construction Land Monitoring System | Team leader** Sep. 2022 – Jun. 2023
Topic: The Development of a Web System to Monitor Construction Land in Guangzhou using WebGIS
Methods: *support vector machine, ArcGIS Maps SDK For JavaScript, PostgreSQL, Vue3, TypeScript*
- **Amplified Urban Heat Islands during Heatwaves | Team member** Sep. 2022 – May. 2023
Topic: A Long Time Series Analysis of Interaction between Urban Heat Islands and Heatwaves in China
Methods: *spatial and temporal analysis of LST, urban and rural cities clustering*
- **Undergraduate Thesis of Science in Geographic Information Science** Sep. 2023 – Jun. 2024
Topic: Mapping 1m Land Cover in Pearl River Delta Based on Remote Sensing Large Model and Multi-source Remote Sensing Data
Methods: *remote sensing large model, VHR mapping, multi-source remote sensing data fusion*

HONORS

- Sun Yat-sen University Third Prize Scholarship during 2020-2021 academic year
- Sun Yat-sen University Third Prize Scholarship during 2021-2022 academic year
- Sun Yat-sen University First Prize Scholarship during 2022-2023 academic year
- **National Scholarship during 2022-2023 academic year**
- Sun Yat-sen University First Prize Scholarship during 2024-2025 academic year
- Second prize in the Guangdong Provincial Mathematics Contest in Modeling, 2022
- Second prize in the 4th National Undergraduate Land Survey Competition, 2022
- Second prize in the 11th National Undergraduate GIS Application Skills Competition, 2022
- Third prize in the Guangdong Provincial 9th Statistic Modeling Competition, 2023

SKILLS

- **Academic Writing Skills:** Familiar with **LATEX** and **Git**
- **Programming Language:** Familiar with **C/C++**, **Python**, **MATLAB** and **SQL**
- **Software Skills:** Familiar with **ArcGIS**, **ENVI**, **Google Earth Engine**, **SPSS** and **VSCode SSH**
- **GIS & RS Programming Skills:** Familiar with **Python GDAL**, **ArcGIS ArcPy**, **GEE Javascript**
- **Deep Learning Skills:** Familiar with **Pytorch** framework and **Hugging face**