Yingjing Huang

Ph.D. candidate in Geographic Information Science

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Interests

GIScience, GeoAI, Deep Learning, Computer Vision, Social Sensing

Education

Peking University   Beijing, China
🎓 Ph.D. in Geographic Information Science   Sep 2021 – present

Topic: *Multi-modal Urban Big Data in Urban Functional Zone Recogniton*

Advisors: Lun Wu, Yu Liu, Yong Gao

Wuhan University   Wuhan, China
🎓 MS. in Geographic Information Science   Sep 2018 – Jun 2021

Thesis: *"Fine-grained tourist emotion extraction and spatio-temporal analysis: A case study on Zhongxiang Mochou Village"*

Advisor: Teng Fei

GPA: 3.9/4.0

Wuhan University   Wuhan, China
🎓 BSc. in Geographic Science   Sep 2013 – Jun 2017

Thesis: *"Big data-based urban-rural dependency portrayal"*

Thesis Advisors: Yiyun Chen, Teng Fei

GPA: 3.5/4.0

Experience

CityDNA Technology Co. Ltd   Beijing, China
GIS Intern   Mar 2021 – Aug 2021

🔖 *Crawled 23 types of data by **Scrapy** and **Selenium** including house prices, rent, POI, etc.*

🔖 *Processed and analyzed geographic data by **Geopandas** and **Arcpy**, and calculated the indices of 50+ cities. Comparing to the previous code, calculation speed has doubled.*

🔖 *Built **machine learning models** to predict urban building functionality, whose accuracy have achived about 0.9.*

Mentor: Qingyuan Zhang

Honors & Awards

"Excellent graduate student", Wuhan University   2020
🎖 *National award for the excellent graduate student in Wuhan University*

Kwang-Hua Scholarship, Kwang-Hua Education Foundation   2020
🎖 *Scholarship to the excellent student*

Second Prize of Outstanding Academic Scholarship, Wuhan University   2020
🎖 *Awards to outstanding student in academic in Wuhan University*

Third Prize of 0utstanding Academic Scholarship, Wuhan University   2015
🎖 *Awards to outstanding student in academic in Wuhan University*

Conferences, Workshops & Schools

The 2021 International Graduate Workshop on GeoInformatics   online
Peking University, Wuhan University, The Hong Kong Polytechnic University   Dec 2021
<u>Presentation:</u> *"Quantifying the Bias in Place Emotion Extracted from Photos on Social Networking Sites: A Case Study on A University Campus"*

National Doctoral Forum on Geospatial Modeling and Visualization of 2019 Wuhan, China
Wuhan Univeristy   Dec 2019
<u>Presentation:</u> *"Emotional Bias in Big Data: Place Emotion Analysis between Cyberspace and Physical Space"*

Publications

Papers reported in reverse chronological order

Peer-reviewed Journal Articles

[1] Meng Bian, Shuyi Guo, Wei Wang, Yuhui Ouyang, **Yingjing Huang**, and Teng Fei. 2021. Next-day forecast of Beijing pollen concentration fused with vegetation remote sensing data——Implementing a nonlinear autoregressive neural network model with external input. Journal of Geo-Information Science, 2021,23(09):1705-1713. (in chinese)

[2] **Yingjing Huang**, Teng Fei, Mei-Po Kwan, Yuhao Kang, Jun Li, Yizhuo Li, Xiang Li, and Meng Bian. 2020. GIS-Based Emotional Computing: A Review of Quantitative Approaches to Measure the Emotion Layer of Human–Environment Relationships. ISPRS International Journal of GeoInformation, 9, 551.

[3] Yizhuo Li, Teng Fei, **Yingjing Huang**, Jun Li, Xiang Li, Fan Zhang, Yuhao Kang and Guofeng Wu. 2020. Emotional habitat: mapping the global geographic distribution of human emotion with physical environmental factors using a species distribution model. International Journal of Geographical Information Science, 1-23.

[4] **Yingjing Huang**, Jun Li, Guofeng Wu and Teng Fei. 2020. Quantifying the bias in place emotion extracted from photos on social networking sites: A case study on a university campus. Cities, 102, 102719.

[5] Shuangyin Zhang, Jun Li, Siying Wang, **Yingjing Huang**, Yizhuo Li, Yiyun Chen and Teng Fei. 2020. Repaid Identification and Prediction of Cadmium–Lead Cross-Stress of Different Stress Levels in Rice Canopy Based on Visible and Near-Infrared Spectroscopy. Remote Sensing, 12, 469.

[6] Yiyun Chen, Tianci Qi, **Yingjing Huang**, Yuan Wan, Ruiying Zhao, Lin Qi, Chao Zhang, and Teng Fei. 2017. Optimization method of calibration dataset for VIS-NIR spectral inversion model of soil organic matter content. Transactions of the Chinese Society of Agricultural Engineering, 06, 107-114. (in chinese)

Leadership & Community Services

Journal Reviewer
- Journal of Urban Technology
- Landscape and Urban Planning
- IEEE Transactions on Human-Machine Systems

SKILLS

Programming Languages	Python, Matlab, R, Javascript, LaTex
Packages	Sklearn, TensorFlow, Pytorch
Databases	MYSQL, SQLite, MongoDB
GIS skills	ArcGIS, QGIS, GeoPandas, Arcpy
Visualization	Matplotlib, Seaborn, D3.js, Photoshop, CorelDraw, Kpler
OS	Windows, Mac OS, Linux

LANGUAGES

Mandarin Chinese	*Native*
English	*Advanced*