Zhewei LIU

ZS1010, Block Z,
Department of Land Surveying and Geo-informatics
The Hong Kong Polytechnic University
Email: jackie.zw.liu@connect.polyu.hk
Website: https://zheweiliu.com/

EDUCATION

Ph.D in GIS, The Hong Kong Polytechnic University   08.2016-08.2020 (expected)
Thesis Topic: Urban Regional Desirability and Irregularity Analytics Based on Crowdsourced
Spatial Big Data, Supervised by Prof. Wenzhong Shi and Prof. Geoffery Shen

B.S. in Remote Sensing and Geographical Information Science, Wuhan University
09.2011-06.2015
GPA 3.65/4.0, Average Score 89.57/100

Research Interest

spatial big data analytics, volunteered geographic information, human mobility

PUBLICATIONS

Shi W, **Liu Z***, Yao Y, et al. LambdaMART-OD: a machine-learned ranking method for origin detection with geotagged social media data. International Journal of Geographical Information Science (under review)
Liu Z, Zhang A, Yao Y, Shi W*, et al.   Performance and robustness analysis of origin detection methods with geo-tagged social media data. International Journal of Geographical Information Science. (accepted and in press)
Shi W, **Liu Z***, An Z, et al. RegNet: a neural network model for predicting regional desirability with VGI data [J].   International Journal of Geographical Information Science (accepted and in press) (**corresponding author**, with supervisor being first author).
Chen P, Shi W*, Zhou X, **Liu Z**, et al. STLP-GSM: a method to predict future locations of individuals based on geotagged social media data [J]. International Journal of Geographical Information Science, 2019, 33(12): 2337-2362.
Liu Z, Zhou X, Shi W*, et al. Recommending attractive thematic regions by semantic community detection with multi-sourced VGI data[J]. International Journal of Geographical Information Science, 2019, 33(8): 1520-1544.
Liu Z, Zhou X, Shi W*, et al. Towards Detecting Social Events by Mining Geographical Patterns with VGI Data[J]. ISPRS International Journal of Geo-Information, 2018, 7(12): 481.

RESEARCH PROJECT

User Origin Detection with LBSN   11.2019-Current

Urban Desirability Prediction   02.2017-Current
Researcher and Developer, to predict the desirability of urban region with VGI
Urban Irregularity Detection   02.2018- Current
Researcher and Developer, to detect urban event with VGI
Traffic Sign Detection   2012-2013
Developer, to identify Traffic Sign with Computer Vision algorithm
QC Spatial Software Developing   09.2015-12.2015
Developer, to develop a comprehensive software for automatic quality checking of the spatial data
Monitoring of the Evolution of Urbanization of Dongguan   09.2014-09.2015
Researcher and Developer, to evaluate urbanization of Dongguan and develop a comprehensive software

AWARDS & HONORS

- First Honor Scholarship of Wuhan University, 2012 (2%)
- Xijie Special Scholarship, 2012
- Second Honor Scholarship of Wuhan University, twice (2013, 2014) (10%)
- Annual Outstanding Students of Wuhan University, three times (2012, 2013, 2014) (10%)
- Outstanding Graduates of Wuhan University, 2015 (10%)

COMPUTER SKILLS

Languages: Python, C/C++, C#, Javascript
Code Library: Pytorch, Keras, Scikit-learn, Numpy, OpenCV, ArcObjects

LANGUAGES

Mandarin: Native
English: Professional Proficiency, **GRE**: 329/340
Cantonese: Elementary Proficiency

SERVICE

Reviewer for IEEE Access
Co-founder/Coordinator of Taibai Reading Club, the Hong Kong Polytechnic University 2017-Present