

# Zhewei LIU

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## EDUCATION

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**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

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spatial big data analytics, volunteered geographic information, human mobility

## PUBLICATIONS

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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

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<b>User Origin Detection with LBSN</b>	11.2019-Current
<b>Urban Desirability Prediction</b>	02.2017-Current
Researcher and Developer, to predict the desirability of urban region with VGI	
<b>Urban Irregularity Detection</b>	02.2018- Current
Researcher and Developer, to detect urban event with VGI	
<b>Traffic Sign Detection</b>	2012-2013
Developer, to identify Traffic Sign with Computer Vision algorithm	
<b>QC Spatial Software Developing</b>	09.2015-12.2015
Developer, to develop a comprehensive software for automatic quality checking of the spatial data	
<b>Monitoring of the Evolution of Urbanization of Dongguan</b>	09.2014-09.2015
Researcher and Developer, to evaluate urbanization of Dongguan and develop a comprehensive software	

## AWARDS & HONORS

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- 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

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Languages: Python, C/C++, C#, Javascript

Code Library: Pytorch, Keras, Scikit-learn, Numpy, OpenCV, ArcObjects

## LANGUAGES

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**Mandarin:** Native

**English:** Professional Proficiency, **GRE:** 329/340

**Cantonese:** Elementary Proficiency

## SERVICE

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Reviewer for IEEE Access

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