

YUE LIN

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EDUCATION

The Ohio State University, Department of Geography

Sept. 2019-present

PhD student, Research interest: GIS, spatial data analysis, GeoAI

Wuhan University, School of Resources and Environmental Science

Sept. 2015- June 2019

Bachelor of Science, Major: Geographical Information Science

GPA: 3.87 / 4.0 (Top 3%)

SCHOLARSHIPS & AWARDS

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| 2019 | Outstanding undergraduate thesis, Wuhan University |
| 2019 | Outstanding Graduate Award, Wuhan University |
| 2018 | Wang Zhizhuo Innovative Talent Scholarship (First Class), Wuhan University (Top 5% in department) |
| 2017 | Zhonghaida Scholarship (First Class), Wuhan University (Top 5% in department) |
| 2016 – 2018 | Outstanding Student Award, Wuhan University (Top 10% in department) |
| 2016 | Second Class Scholarship, Wuhan University (Top 10% in department) |

RESEARCH EXPERIENCE

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| Sept. – Nov. 2018 | Automated urban landmarks extraction with random forests algorithm
Supervisor: Dr. Mengjun Kang <ul style="list-style-type: none">Undertook model adjustment, including re-selecting urban landmarks from Baidu Map and AMap as the input, assisting in determining the features that identify landmark salience to construct a random forest model, and applying SMOTE in R to pre-process the POI dataset before classificationCompleted a paper on this topic as a co-author with another student, which has been published in International Journal of Geographical Information Science. |
| Jan. – Sept. 2018 | Impact of urban land expansion on address quality
Supervisor: Dr. Mengjun Kang <ul style="list-style-type: none">Used LISA to explore the spatial pattern of address quality in Shenzhen, and applied structural equation modeling (SEM) to investigate how rapid urban land expansion in developing countries impacts urban address qualityCompleted a paper on this topic, which has been submitted to Environment and Planning B: Urban Analytics and City Science for peer review |
| Dec. 2017 – present | Auto-detecting point-source pollution in urban lakes
Supervisor: Dr. Xu Tang <ul style="list-style-type: none">Proposed an approach to detect point-source pollution in urban lakes based on |

remote sensing data using algorithms such as k-means and thinning, and conducted related experiments in MATLAB

- Wrote a report on the preliminary findings and obtained a grant of ¥1,000 through the Undergraduate Scientific Innovation Project at Wuhan University

**Nov. 2017 –
Feb. 2018**

National Geographical Conditions-Integrated Analysis Model (NGC-IAM) system

Supervisor: Dr. Mengjun Kang

- Developed three spatial analysis models in C++ independently, including: (1) entropy weight model for assessing land use efficiency; (2) entropy and diversity analysis models for assessing land use mix; (3) Cobb-Douglas production function model for assessing regional road network development

**Nov. 2017 –
Jan. 2018**

Guizhou Province Tourism Resources Atlas

Supervisor: Dr. Haihong Zhu

- Partnered with another student to create two maps for Jinping County, with my work covering: (1) main map design, including features of road network, water systems, residential areas and tourism resources; (2) map layout design, including map title, legend and frame
- Our work has been included in the Guizhou Province Tourism Resources Atlas for 2017 Guizhou Province tourism survey

**June – Aug.
2017**

Guide APP

Supervisor: Dr. Teng Fei

- Led a team to develop a mobile guide application based on AMap Android SDK, which simplifies the navigation map to a sketch while emphasizing significant landmarks
- This application earned an honorable mention in the SuperMap Cup 16th University GIS Contest in 2017

PROFESSIONAL EXPERIENCE

**Sept. 2019 –
Dec. 2019**

Teaching assistant, Department of Geography, the Ohio State University

Supervisor: Dr. Ningchuan Xiao

- GEOG 5222 GIS programming and algorithms

**Sept. 2018 –
Dec. 2018**

Undergraduate research assistant, State Key Laboratory of Resources and Environmental Information System, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

Supervisor: Dr. Jinfeng Wang

- Reviewed and wrote a report on the statistical methods used to test the association between two datasets
- Designed and built a c++ software named SSI (Sandwich Spatial Interpolator) for spatial interpolation of a spatially stratified heterogeneous population.

**Oct. 2017 –
June 2019**

Undergraduate research assistant, Urbanization Research Group, Wuhan University

Supervisor: Dr. Mengjun Kang

- Reviewed and wrote a report on the development of geocoding and street address in the United States

- Assisted in the NGC-IAM system project (see Research Experience above)

PUBLICATIONS

Yue Lin, Mengjun Kang*, Yuyang Wu, Qingyun Du, Tao Liu (*under peer review*). A deep learning architecture for semantic address matching [J]. *International Journal of Geographical Information Science*.

Yue Lin, Jinfeng Wang*, Chengdong Xu (*under peer review*). Theoretical and empirical comparative evaluations on measures of map association [J]. *Journal of Geographical Systems*.

Yue Lin, Mengjun Kang*, Biao He, Jing Li (*under peer review*). Spatial pattern analysis of address quality: a study on the impact of rapid urban expansion in China [J]. *Environment and Planning B: Urban Analytics and City Science*.

Yue Lin, Yuyang Cai, Yue Gong, Mengjun Kang*, and Lin Li. Extracting urban landmarks from geographical datasets using a random forests classifier [J]. *International Journal of Geographical Information Science*, 2019: 1-18.

Ping Yang*, **Yue Lin**. Application of AutoCAD in map design and compilation [J]. *Urban Geotechnical Investigation & Surveying*, 2018, (5): 118-121.