Ziqi Li

Apr 2019

School of Geographical Sciences and Urban Planning

COOR 5643A

Arizona State University

Phone: 602.329.4926

Email: liziqi1992@gmail.com

Homepage: http://www.ziqi-li.info

Education

August 2016 – 2020 (expected)

PhD in Geography

School of Geographical Sciences & Urban Planning, Arizona State University

Dissertation: Multi-scale Geographically Weighted Regression: Computation, Inference and Applications

Committee: Drs. A. Stewart Fotheringham, Wenwen Li and Michael Goodchild.

September 2014 – May 2016

Master of Arts in Geography

Department of Geography, George Washington University

September 2010 – July 2014

Bachelor of Environmental Studies (Honors) in Geomatics

Minor in Computer Science

Diploma of Excellence in GIS

Department of Geography and Environment Management, University of Waterloo, Canada

September 2010 – July 2014

Bachelor of Engineering in Remote Sensing

School of Remote Sensing and Information Engineering, Wuhan University, China

Research Experiences

Summer 2015 and Summer 2016

GIS Consultant | The World Bank

September 2014 – May 2016

Graduate Research Assistant | George Washington University

August 2013

GIS Assistant | University of California, Berkeley

June – July 2013

Remote Sensing Research Assistant | Ministry of Environmental Protection, China

Publications and Presentations

Peer-reviewed publications

Li, Z. & Fotheringham, A. S. (under review). Computational Improvements to Multi-scale Geographically Weighted Regression. *Computers, Environment and Urban Systems*.

Fotheringham, A.S. Han, Y., & **Li, Z.** (under review). Examining the influences of ambient air quality in China's cities using multi-scale geographically weighted regression. *Transactions in GIS*.

Oshan, T., **Li, Z.**, Kang, W., Wolf, L. J., & Fotheringham, A. S. (under review). mgwr: A Python implementation of multi-scale geographically weighted regression for investigating process spatial heterogeneity and scale. *Journal of Statistical Software*.

Li, Z., Fotheringham, A. S., Li, W., & Oshan, T. (2019). Fast Geographically Weighted Regression (FastGWR): a scalable algorithm to investigate spatial process heterogeneity in millions of observations. *International Journal of Geographical Information Science*, 33(1), 155-175.

Oshan, T., Wolf, L. J., Fotheringham, S., Kang, W., **Li, Z.**, Yu, H. (2019). A comment on Geographically weighted regression with parameter-specific distance metrics. *International Journal of Geographical Information Science*. doi:10.1080/13658816.2019.1572895.

Yu, H., Fotheringham, S., **Li, Z.**, Oshan, T., Kang, W., & Wolf, L. J. (2019). Inference in multiscale geographically weighted regression. *Geographical Analysis*. doi:10.1111/gean.12189.

Li, Z. (2018). NoSQL Databases. *The Geographic Information Science & Technology Body of Knowledge (2nd Quarter 2018 Edition)*, John P. Wilson (Ed). DOI: 10.22224/gistbok/2018.2.4.

Li, Z., Zhang, Z., & Davey, K. (2015). Estimating Geographical PV Potential Using LiDAR Data for Buildings in Downtown San Francisco. *Transactions in GIS*. doi:10.1111/tgis.12140.

Conference presentations

Li, Z., Fotheringham, A. S., Li, W., & Oshan, T. (2019) FastGWR: Computational Improvements to Geographically Weighted Regression Models. Oral presentation at *Association of American Geographers (AAG), Washington DC, April, 2019.*

Li, Z., Zhao, Q., Fischer, H., Patricia, S., Elizabeth, A. W. (2019) ActivityLog – HeatMappers: A Novel Research Data Collection Tool for Logging Activities, Locations and Environment Data. Poster presentation at *American Meteorological Society (AMS), Phoenix AZ, Jan 2019.*

Li, Z. (2018) A Comparison of Open-Source Geographically Weighted Regression (GWR) Packages. Oral presentation at *Spatial Accuracy 2018 , Beijing China, Jun 2018.*

Li, Z., & Shiklomanov, N. (2015). Impacts of urban and industrial development on Arctic land surface temperature in Lower Yenisei River Region. Poster presentation at *American Geophysical Union (AGU), San Francisco CA, Dec 2015.*

Shiklomanov, N., Nelson, F., Streletskiy, D., Klene, A., & **Li. Z** (2015) CALM at 21: Results of long-term monitoring of the active layer/upper permafrost system. Oral Presentation at *American Geophysical Union (AGU), San Francisco CA, Dec 2015.*

Li, Z., & Shiklomanov, N. (2015). Effects of Arctic Urban and Industrial Development on and Surface Temperature: A Case Study for the Norilsk Region, Russia. Oral Presentation at *Association of American Geographers (AAG), Chicago IL, April 2015.*

Teaching Experiences

Instructor

GIS 211 Geographic Information Science II Lab (Fall 2016/2017)

Teaching Assistant/Associate

GIS 205 Geographic Information Science I (Spring 2017/2018/2019)
GIS 470 Statistics for Geographers (Spring 2017)
GIS 322 Spatial Data Structure (Fall 2016)

Selected Awards and Honors

2019	Anthony J. Brazel Research Award ($1000), CLAS, ASU
2018	Honorary Mention, Poster Contest ($400), ISSR ASU
2018	University Graduate Fellowship, SGSUP, ASU
2016 – 2020	Graduate Teaching Assistantship, SGSUP, ASU
2015	The second runner-up team member in the 2015 World Geography Bowl at AAG
2015	Campbell Summer Research Grant ($1000), GWU
2014 – 2016	University Fellowship, GWU
2014 – 2016	Graduate Research Assistantship, GWU
2014	Graduate on Dean's Honors List, UWaterloo
2012	Chinese Universities Entrance Scholarship ($1000), UWaterloo

Software Development

Desktop and open-source

MGWR - Desktop software for calibrating Multi-scale Geographically Weighted Regression (MGWR) models. Available at: https://sgsup.asu.edu/sparc/mgwr.

mgwr - open-source *python* package for calibrating MGWR models. Available at: https://github.com/pysal/mgwr.

Mobile Applications

Earthquake alert by Earthquick *(40,000+ downloads)* - Realtime earthquake alerts and maps of the world.

Solar Cal *(4,000+ downloads)* - Solar potential calculator based on your geographic location.

ActivityLog - Heatmappers - Novel data collection tools with Bluetooth connectivity to temperature sensor for recording users' heat and activity space.

Memberships

Association of American Geographers (AAG)
Chinese Professional in Geographic Information Systems (CPGIS)

Skills

Data Analysis: R, Python, Matlab.
Application Development: Desktop (QT), iOS (Swift/Obj-C), Web (Javascript/CSS/HTML).
GIS and Remote Sensing: ArcGIS, QGIS, Erdas Imagine, ENVI.