Zhaoyi Fu

21 Clifton St, Worcester, MA | ZFu@clarku.edu | 617-697-1653 | LinkedIn: https://www.linkedin.com/in/zhaoyi-fu-3472b5113

SKILLS

Software: ArcGIS, TerrSet (Idrisi), ERDAS, SPSS, QGIS, GeoDa, ArcCollector, ArcServer, ArcOnline, Visual Studio, Google Earth, Microsoft Office, SketchUp, Adobe Photoshop, Prezi
Programming languages: Python, C#, Object Pascal (Delphi), JavaScript, SQL, HTML/CSS, R

EDUCATION

Master of Science, Geographic Information Science for Development and Environment — **Expected: 05/2017**
Clark University, Worcester, MA — GPA: 3.9
Bachelor of Science, Geographic Information Science — **06/2015**
Nanjing University, Nanjing, China — GPA: 3.7

RELATED EXPERIENCE

GIS Intern, LandVest Summer GIS Internship — **05/2016 – 08/2016**
LandVest, Boston, MA

- Assisted with project "map sets" creation by using python script tool, which is also the core service that LandVest GIS team provides. The major types of map are ortho, base, site analysis and alternative lot concept plans.
- Supported with data maintenance for company's New England geodatabases, and develop Level 3 parcel database.
- Collected field data with ArcCollector, and managed field data in ArcOnline.
- Created maps for key scenic areas and residential areas, which will have possible impact by the Northern Pass Plan.
- Assisted with Mass Audubon project, which aimed to create an interactive tool and web map that identifies specific parcels.

Research Assistant, Mapping the Distribution of Soil Heavy Metal Pollution in Zhejiang Province — **07/2014 – 06/2015**
Research Institute of Remote Sensing and Information Technology Application of Zhejiang University, China

- Fused in-situ data through space and preprocessed heavy metal pollution data by applying Nemero-index method.
- Applied Inverse Distance Weighting and Hotspot analysis to reflect the spatial distribution of soil polluted with heavy metal.
- Utilized Indicator Kriging and Sequential Gaussian Simulation to evaluate risk and uncertainty of the soil pollution.
- Mapped polluted soil through Zhejiang Province, and provided the atlas to government for future planning.

Geospatial Analyst, Wuxi City Real Estate Spatial Database Construction — **02/2014 – 07/2014**
Nanjing University, China

- Used ArcGIS to digitize roads of Wuxi City, and divided the roads into three levels.
- Geocoded each road with different rank and geographic position.

RESEARCH EXPERIENCE

IDW Model Development in TerrSet — **2016**
Raster System Development (for TerrSet), Clark University, Worcester, MA

- Created IDW Model with Delphi Environment, and enabled user to specify number of points be used or search radius.
- Applied dialog to Dynamic Link Libraries (DLL), and integrated the user interface form into TerrSet.

Computer Programming for Suitability Mapping — **2016**
Computer programming with python, Clark University, Worcester, MA

- Specified input parameters, and reclassified raw variable raster to true probability images.
- Calculated the final suitability image, and produced accuracy assessment between suitability image and validation image.

Evaluate of Landsat 8 and Sentinel Sensors to Identify Seagrass in Coastal Area — **2016**
Advanced Remote Sensing, Clark University, Worcester, MA

- Discovered an empirical method to identify seagrass in coastal area with the use of Landsat 8, Sentinel 1, and Sentinel 2.
- Tested each sensor's efficiency in identifying photosynthetic oceanic vegetation by using Spectral Unmixing method.

Modeling Suitability of Major Crops under the Impact of Climate Change on a Global Scale — **2016**
Advanced Raster, Clark University, Worcester, MA

- Modeled suitability with four major crops (maize, wheat, rice, and potato) in both current and future climate conditions (2050), and assessed changes of suitability.
- Compared four RCPs scenarios regarding to suitability of four major crops, and examined three different climatic models.

Assessing the Effects of Public School Quality on Single-family Housing Price in Towns of Massachusetts — **2016**
Advanced Vector GIS, Clark University, Worcester, MA

- Utilized nine explanatory variables to represent school quality information, which explained students' performance, teachers' performance, and school system. Then spatially combined them with average single-family housing price information.
- Applied Moran's I and Getis-Ord Gi* Statistic Hot Spot Analysis to analyze the similarity between dependent and independent variables, and used Ordinary Least Squares (OLS) to assess the relationship between them.

PUBLICATION

- Liu, L., Zhou, Y., Ma, Z., Shi, Z., **Fu, Z.**, . 2015, Multiple Source and Data Mining Techniques Based Regional Soil Organic Matter Digital Mapping, 19th Remote Sensing Conference in China, 3: 922 - 927.