

Liwei FU

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EDUCATION

Master of Science (Geographic Information Science and Cartography), University of Utah, Salt Lake City, Utah 2015

GPA: 3.9 • Thesis: Analyzing Route Choice of Bicyclists in Salt Lake City

Bachelor of Engineering (Remote Sensing), Wuhan University, Wuhan, China 2012

GPA: 3.5 • Research Paper: A Study of Resident Identification Method based on High Resolution Remote Sensing Imagery

EXPERIENCE

Research Assistant, University of Utah Jul. 2014 – Present

- Analyze public transportation accessibility in Utah and Oregon area.
- Calculate regional transit time by creating real-time travel cubes from Google's General Transit Feed Specification (GTFS) data.
- Improve the performance of network analysis geoprocessing with ArcGIS using multiprocessing module (from a week to 13 hours).

Volunteer, GISCorps Aug. 2014 – Present

- Assisted in the U.S. Geological Survey (USGS) iCoast project.
- Identified changes to coasts influenced by Hurricane Sandy by comparing and tagging 236 aerial photographs.

Summer Intern, Esri Jul. 2014 – Sep. 2014

- Constructed three use cases for retail business and used as demos on Esri website. They include marketing strategy, merchandising planning and indoor mapping.
- Developed ArcGIS Online Story Maps to show retail industry focuses.
- Simulated indoor routing scenario using python and ArcMap.

RESEARCH PROJECT

Bicyclists' Route Preferences Analysis Aug. 2013 – Jun. 2014

Designed and distributed biking preferences questionnaires. Geocoded each individual's bike route with Google Map and ArcGIS. Managed stated preference data in Excel and Geo-database. Conducted geospatial analysis and modeled travel behavior with ArcGIS and Python.

Simulation of Bicycle Flows in Salt Lake City Jan. 2013 – May 2013

Designed a spatial interaction model with Agent-base modeling. Illustrated map features including elevation and streets in ArcGIS. Built a disaggregated simulation model within the NetLogo Platform.

Simulation and Prediction of Urban Land Use Expansion**Jan. 2013 – May 2013**

Preprocessed remote sensing data and conducted image classification using Erdas Imagine. Developed a geocomputation-based predicting model for metropolitan area of Shanghai, China with the ArcGIS ModelBuilder.

Bicycle use and Infrastructure Study**Sep. 2012 – Dec. 2012**

Analyzed correlations between the bicycle use in Salt Lake City and its bike infrastructure. Assigned area of interested and spatial attributes with ArcGIS. Built a spatial regression model in R programming language.

Sandstorm Spread and Formation Evaluation**Sep. 2010 – Sep. 2011**

Worked with a team to evaluate the spread and the formation of sandstorms in north China. Extracted spatial-temporal variation patterns of sandstorms and surface parameters from satellite data using Erdas Imagine.

Earthquake Rescue and Reconstruction Survey**Jul. 2009 – Sep. 2009**

Participated in a surveying project to study applications of remote sensing and GIS methods in the giant earthquake happened in Sichuan Province, China. Investigated the application of the Digital Elevation Model and the Digital Ortho-photo Map in rescue and reconstruction.

ADDITIONAL

Leader of a web design team for college websites at Wuhan University **Sep. 2008 – Sep. 2010**

Software: ArcGIS desktop, ENVI, AutoCAD, Microsoft Office Applications, Adobe Photoshop

Languages: R, SQL, Python, C++