

**Yanjia Cao**  
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### **EDUCATION**

**M.S. in Geography, University at Buffalo, The State University of New York**      Expected June 2014

- Temporary Thesis Title: Spatial and Temporal Analysis and Modeling for Prenatal Exposure

**B.S. in Geographic Information System, Jiangsu Normal University**      June 2012

- Degree Thesis: Design and Development of Wuxi Water Resource Management System Based on ArcGIS API for Javascript

### **PUBLICATIONS**

- Cao Yan-jia, Zou Yu-ting, and Shen Yi. "Urban spatial expansion and traffic pulsation based on GIS: A case study of Xuzhou." *Uncertainty Reasoning and Knowledge Engineering (URKE), 2011 International Conference on*. Vol. 2. IEEE, 2011.
- Zhou Jing, Li Baojie, Cao Yanjia, et al. "Analysis on Urban Spatial Expansion Process and Driving Forces in Xuzhou City in 1979~ 2008." *Geomatics World* 3 (2011): 014.

### **EXPERIENCE**

Research assistant for University at Buffalo Regional Institute and Urban Design Project (UBRI/UDP), Environmental and Landuse Planning Research Lab, SUNY Research Foundation, March 2013-present

- Flex viewer for map display creating
- ArcGIS Server managing and map services creating
- GIS data analysis

Research assistant for Climate Change and Social Vulnerability in Texas, Environmental and Landuse Planning Research Lab, March 2013-present

- Flex viewer creating with SV geoprocessing customizing
- ArcGIS Server managing and geoprocessing services creating
- GIS data analysis

Air Quality Assessment Model for West Seneca, April 2013

- Spatial analysis of air quality in four seasons in 2010
- Data uncertainty analysis

Analysis on Spatial Distribution of Melanoma in New York State, April 2013

- Application of Moran's I, Quadrat Method and Correlation Matrix

Research assistant for Hurricane Sandy Damage Assessment, Landscape-based Environmental System Analysis & Modeling (LESAM) Lab, SUNY Research Foundation, November 2012

- Pointed inundated places and roof damaged buildings on NOAA images
- Corrected coordinates of injured locations in social media

Intern as a GIS engineer in ICT EHI Technology Development Co.Ltd, Wuxi, China, February-April 2012

- Created Environmental GIS Display System for Wuxi Environment Protection Agency using ArcGIS Server Web developing
- Designed layers of different polluted water and urban region

- Checked geography data about water usage and alga pollution

Spatial Accessibility Analysis of Medical Facilities in Xuzhou City Based on GIS, University Scientific Research Project, November 2010

- Collected geography data about roads, hospitals and resident buildings
- Analyzed the shortest way from hospitals to certain places using ArcGIS

Analysis on Urban Spatial Expansion Process and Driving Forces in Xuzhou City in 1979-2008, University Innovative Lab of Environment and Development, September 2010

- Collected population and economy data
- Digitalized raster maps of construction areas in different years using ArcMap

Study on Urban Spatial Expansion and Traffic Pulsation in Xuzhou City Based on GIS, University Innovative Lab of Environment and Development, September 2010

- Did overlay analysis of traffic layer and urban construction area layer using ArcGIS
- Set math formula to get relationship between urban expansion and traffic development
- Wrote the paper and was the first student ever to publish paper on international conference journals in my department

Xuzhou Fire Risk Assessment Model Based on GIS, National ESRI Competition (Spatial Analysis and Modeling Group), May 2010

- Did overlay and buffer analysis on population, fire stations, dangerous sites and water stations using ArcGIS
- Built models based on weighted factors and population grid using ArcGIS

Xuzhou H1N1 Flu Surveillance and Control System Based on GIS, National ESRI Competition (Applying and Developing Group), May 2010

- Collected geography data about roads, hospitals, schools and resident buildings
- Digitalized raster maps of transportation and residential places in Xuzhou
- Did simple programming of VBA in ArcGIS to realize basic functions of ArcMap

A Study on the Spatial Distribution of Large Professional Market in Xuzhou, College Students Creating and Training Project of Jiangsu Province, October 2009

- Collected data on wood and electronic market locations and pointed them on digital maps
- Analyzed the characteristics of spatial distribution of different markets in the city

School Surveying, Jiangsu Normal University, August 2009

- Theodolite, level, total station application for university surveying

## **ACTIVITIES**

AAG, Tampa, April 2014 (member since Oct.2013)

National Geography Annual Conference in Xinjiang, July 2011

Physical geography investigation in Mt. Lushan, August 2010

## **AWARDS**

Winner of Physical Geography Photo Contest during Geography Awareness Week at UB, November 2012

University Excellent Graduating Student, June 2012

University Science Research and Innovation Award, May 2012

Second Class Scholarship for Excellent Students, September 2011

Second Prize of University Web Designing Competition, November 2010

Second Class Scholarship for Excellent Students, September 2010

Third Class Scholarship for Excellent Students, September 2009

University Excellent Student Leader, September 2009

Second Prize of College English Speaking Contest, October 2008

### **COMPUTER SKILLS**

Language: Visual Basic, C, C++, C#, Flex, Java, Python

Professional Software: ArcGIS Desktop 10.1, ArcGIS Server 10.1, AutoCAD, MapInfo, Imagine ERDAS,  
ENVI, MyEclipse, Adobe Flash Builder

Database: SQL Server, Oracle

Other software: Dreamweaver, Photoshop, Flash

### **OTHER SKILLS**

Piano: Top-grade in piano test of Shanghai Musician Association

First prize in the Third Asian Youth Piano Competition