511 Four Mile Rd 22305, Alexandra, VA

# Zhaohui Li(Zach)

GIS Scientist | Geographer

### Tel

(202)-469-9782

## **Education**

2014 - 2016 M.A in Geography, GWU

Washington D.C

### Mail

Mongolia.hui@ outlook.com Specialization in GIS,RS,Data Science,and Urban Planning. Related Coursework: GIS Fundamental | Advanced, Data Mining, GIS Pro-

gramming, Geospatial Statistics, Database Management Systems, Webbased GIS, Urban Geography, Qualitative Methods, Geography Thoughts

and Methods.

### **Personal Page**

1zhao.github.io

#### 2014 - 2016 Bachelor of Engineering in Urban Planning, IMAU

Hohhot, P.R. China

Washington D.C

Hangzhou, P.R. China

Specialization in Urban Planning, and Architectural Design

Related Coursework: VB Programming, Urban Road Traffic and Infrastructure Planning, Urban Green Space System Planning, Fundamentals of City Planning, Architectural Mechanics, Architectural Design1|2, History of City Construction.

# **Programming**



# **Research Intern Experience**

03/16-03/16 Field Research in H Street car, Washington D.C

> · Collected field data (Photos, videos, interviews materials, and archived photos). Drafted the short history of Captain streetcars and visualized timeline of D.C street development. Investigated current H street utilized condition, safety, as well as observed historic H street around running Street car. Predicted D.C Street car development in future. • Conducted several potential research questions.

# **OS Preference**

Windows ★★★★ MacOS ★★★★★ Unix ★★★★★

#### 01/16-Present Globalization Urbanization Migration (GUM) Website Maintained Washington D.C

· Currently Working for Dr. Marie Price and to collect empirical data at the urban-level to measure immigration in cities around the world and Update data by GWU Drupal.

### **Personal Skills**



07/12-08/12 **Zhejiang Urban-Rural planning&Design Institute** 

> Position Draftsman with paid.
> Designed, conducted, and coordinated many draft projects with developing software packages such as AutoCAD, Photoshop, Sketch Up, etc. Improved work efficiency by self-developing new techniques in the CAD software.

# **Project Experience**

#### **GIS Skills**

Geop, GIS Modelin

#### 02/16-03/16 **G20 Counties Military&GDP Analysis (2005-2014)**

 Choosed time span from 2005 to 2014 and Collected data from Word Bank Databank. • Applied Python libraries (Numpy&Pandas) to process and manipulate data • Visualized and analyzed data used matplotlib (Python library) and

Washington D.C

Poltly (Data Visualization Toolset).

#### 09/15 - 12/15 Factors affect the Population distribution in Ordos city Washington D.C

 Processed DMSP/OLS Data and Collected Local statistics data in county level (GDP, Population, Farmland area). Used Arcpy geoprocessing the collected data and create Python Code that convert DBF format file to CSV format file. Analyzed the data with spatial autocorrelation function and GWR as well as OLS.etc.

### **GIS App**



#### 10/15 - 12/15 A web Application of Geospatial Visualization for Fatal Traffic Crashes in Washington D.C (2004-2013) Washington D.C

• Developed the Fatal Traffic Crashes Spatial database with Postages.• Data processing and Geo-processing with ArcGIS and EXCEL. Improved User Interface with Bootstrap frame and used the leaflet library of JavaScript achieved dynamic interactive map. Designed interactive dynamic statistics charts (Pie charts & Line charts) with Google charts.

#### 03/15 - 05/15 Spatial Distribution of Fatal Traffic Crashes in Washington D.C. (2003-Washington D.C

· Geo-processing and Geocoding data with toolset in ArcGIS. · Collected Geospatial data from National Highway Traffic Administration • Used Describe Statistics functions and Geo-spatial Statistics functions to analyze the dataset. • Generated several thematic maps and of the study area and drafted a report.

### **Truf Map**



#### 03/15 - 05/15 Geographically Visualizing Fine Particle (Pm2.5) Vehicle Emission in Washington D.C Washington D.C

 Improved the Gaussian Line Source Model and make it adjust to the project. Used Model builder of ArcGIS to populate Euclidean distance between each road segment and the study area. • Used R-Studio to sum all raster data and finalize a single raster layer to represent the study area. • Generated a Vehicle Emission concentration map and drafted a report

#### 05/12 - 07/12 Field Surveying in Mahan mountain forest farm, Inner Mongolia Mongolia, P.R. China

 Applied total station to measure and gather the surveying data from the study area of Manhan Mountain. • Measured characteristics of the study area such as surface physical feature, elevation, etc. Drafted the survey data with South Cass CAD.

#### Languages Mandarin ★★★★ English ★★★★

### **Presentation**

Li, Z. Price, M.

Ghost Cities in China: Urban Sprawl Urbanism Without People. Association American of Geographers (AAG). San Francisco CA. April 2016