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Personal Page

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Programming



OS Preference

Windows ★★★★★
MacOS ★★★★★
Unix ★★★★★

Personal Skills



Zhaohui Li(Zach)

GIS Specialist | Front-End Developer

Education

2014 - 2016 **M.A in Geography, GWU**

Washington D.C

Specialization in GIS,Data Science,and Urban Geography.

2010 - 2014 **B.Eng in Urban Planning, IMAU**

Hohhot,China

Specialization in Urban Planning,and Architectural Design

Work Experience

06/16 - 12/16 **HIP Consult.Inc | Data Visualization Intern**

Washington D.C

- Conducted research to obtain socioeconomically and infrastructure data for emerging markets, using open source mapping software to map infrastructure data and using PostgreSQL queries to populate the spatial database with metadata.
- Maintaining, cleaning, and organizing the infrastructure database, and potentially helping to automate the workflow using Python scripts.
- Utilized GIS knowledge to aggregate socio-economic data and create maps that address the relationship between broadband and other types of infrastructure.
- Generating outputs from the infrastructure database as needed for other consulting projects.

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

Hangzhou,China

- 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.

Research Experience

01/16 - 08/16 **GUM Research Website Maintained**

Washington D.C

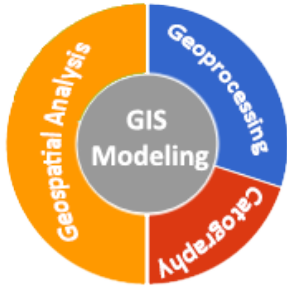
- Worked for Dr.Marie Price and collected empirical data at the urban-level to measure immigration in cities around the world. • Updated the collected data by GWU Drupal.
- Visualized Immigration data (US level, World level) with static maps and developed a motion chart.

03/16 - 03/16 **Field Research of 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 time-line of D.C street development.
- Investigated current H street utilized condition, safety.
- Predicted D.C Street car development in future.
- Conducted several potential research questions.

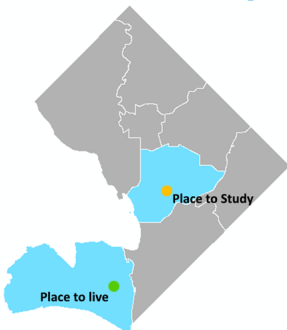
GIS Skills Project Experience



GIS App



Truf Map



Languages

Mandarin ★★★★★
English ★★★★★

02/16 - 03/16 **G20 Counties Military&GDP Analysis (2005-2014)** [Washington D.C](#)
 • Retrieved Social economic dataset with Word Bank Databank API from 2005 to 2014. • Scripted with Python libraries (Numpy&Pandas) to process and manipulate data • Analyzed and Visualized data used matplotlib (Python library) and Poltly (Data Visualization Toolset).

10/15 - 12/15 **A web Application of Geospatial Visualization for Fatal Traffic Crashes in Washington D.C** [Washington D.C](#)
 • Implemented the Fatal Traffic Crashes Spatial data with Postages and Applied GeoServer to publish the WMS layers. • Used ArcGIS and Python Script to Geoprocess Data. • Improved UI with Bootstrap frame and used the leaflet.js to achieve featured(Clustered & Spatial- temporal & Choropleth) map. • Implemented motion charts (Pie charts & Line charts) with Google charts.

09/15 - 12/15 **Factors affect the Population distribution in Ordos city** [Washington D.C](#)
 • Processed DMSP/OLS images and collected Local social-economic data in county level. • Used Arcpy to process the collected data and used Python script to process the data. • Measured and Analyzed the relationship of several variables by Spatial Modeling.

10/15 - 12/15 **A web application for Student Career Services in DMV Area** [Washington D.C](#)
 • Developed UI with Bootstrap frame. • Designed the E-R diagram and Schema diagram. • Used PHP connected the Database and Front Web pages. • Achieved feature such as login, company post position, student search position with MySQL and PHP.

03/15 - 05/15 **Geographically Visualizing Fine Particle (Pm2.5) Vehicle Emission in Washington D.C** [Washington D.C](#)
 • Implemented the Gaussian Line Source Model to the project. • Used Model builder of ArcGIS to calculate Euclidean distance between a test vehicle and road segments. • Used R Script to sum up the generated raster layers. • Created a DC Vehicle Emission(PM 2.5) concentration map over dc road network and drafted a report.

05/12 - 07/12 **Surveying of Mahan mountain forest farm** [Inner Mongolia,China](#)
 • Applied total station to measure and gather the high resolution DEM data. • Measured characteristics of the study area such as surface physical feature, elevation, etc. • Drafted the survey data with South Cass CAD & ArcGIS 9.3.

Professional Presentation

Li, Z

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