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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.

Related Coursework: GIS Fundamental | Advanced, Data Mining, GIS Programming, Geospatial Statistics, Database Management Systems, Web-based GIS, Urban Geography, Qualitative Methods, Geography Thoughts and Methods.

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

Hohhot, 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 Design 1|2, History of City Construction.

Work Experience

06/16 - 08/16 **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.

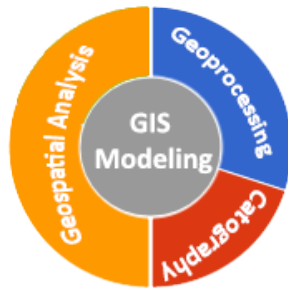
03/16 - 03/16 **Field Research in H Street car**

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.
- Predicted D.C Street car development in future.
- Conducted several potential research questions.

Project Experience

GIS Skills



GIS App



Truf Map



Languages

Mandarin ★★★★★
English ★★★★★

02/16 - 03/16 **G20 Counties Military&GDP Analysis (2005-2014)** [Washington D.C](#)
• Chosen time span from 2005 to 2014 and Selected data though Word Bank Databank API. • Applied Python libraries (Numpy&Pandas) to process and manipulate data • Visualized and analyzed 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](#)
• Developed the Fatal Traffic Crashes Spatial database with Postages. • Data processing and Geo • Developed the Fatal Traffic Crashes Spatial database with Postages. • Data processing and Geoprocessing with ArcGIS and Python Script. • Improved User Interface with Bootstrap frame and used the leaflet library of JavaScript achieved interactively map. • Designed 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 **Student Career Services for DMV Area** [Washington D.C](#)
• Developed User Interface with Bootstrap frame. • Designed the E-R diagram and Schema diagram. • Used PHP connected the Database and Front Web pages. • Achieved login, company post position, student search position with SQL and PHP.

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 calculate Euclidean distance between test vehicle and road segments of study area . • Used R Script to process the generated raster data. • Produced a Vehicle Emission concentration map and drafted a report.

05/12 - 07/12 **Field Surveying in Mahan mountain forest farm** [Inner Mongolia, 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.

Presentation

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