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Programming

R | Python (Arcpy, Panda, Numpy, Scipy)

HTML CSS JavaScript (Leaflet, JQuery, D3.js, Angular.js) | PHP

OS Preference
Windows ★★★★☆
MacOS ★★☆☆☆
Unix ★☆☆☆☆

Personal Skills

Initiative | Curiosity
Team Player
Organize | Manage

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

| 12/16 - 01/17 | **World Bank Group | Short Term Consultant** | Washington D.C |

Assembled a bunch of Excel Spreadsheets and PDF files into a single time-series dataset(monthly, quarterly, annual).

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

• Conducting 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.
• Utilizing 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

| 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 domestic, World level) with static maps and developed a motion chart.
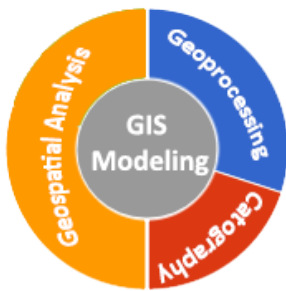
| 03/16 - 03/16 | **Field Research of H Street car** | Washington D.C |

• Collected field data (Photos, videos, interview materials, and archived files).
• 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

GIS App

Truf Map

Languages

Mandarin ★★★★★
English ★★★★☆

Project Experience

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.• Used 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 as well as GeoServer to publish the WMS layers.• Used ArcGIS and Python Scripts to process Data.• Improved UI with Bootstrap frame and used the leaflet.js to achieve interactively 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.• Created a Model Builder Tool in ArcGIS to calculate Euclidean distance between a test vehicle and the road segments.• Used R scripts to sum up the raster layers that generated from the Model builder Tool. • Created a DC Vehicle Emission(PM 2.5) concentration map 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

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

Publication

Zhao, B., D.Z. Sui, Z. Li.
Visualizing the gay community in Beijing with location-based social media. Environment and Planning A 0(0): 0308518X16685885