# Chenxiao (Atlas) Guo

chenxiao.guo@wisc.edu    |    (762)728-0813    |    LinkedIn: atlas-guo    |    Handshake: Atlas Guo

## SUMMARY

Seeking Summer 2019 Internships:
- International **Ph.D.** student in **Geography (GIS)** with minor in **Computer Science**.
- Rich hands-on experience in **GIS Application Development** and geographic research, with strong **Programming** skills.

## EDUCATION

**University of Wisconsin-Madison** (UW-Madison)          GPA: 4.0/4.0                    *Madison, WI, 2021 (Expected)*
- Ph.D. in Geography (Department of Geography), Minor in Computer Science
- RA in UW-Cartography Lab;    TA Courses: *Intro to GIS*, *GIS Applications*, *Geo-computing*

**University of Georgia** (UGA)                    GPA: 3.7/4.0                        *Athens, GA, 2017*
- M.S. in Geography (Department of Geography)
- RA in Carl Vinson Institute of Government (App-Dev Group);    TA Course: *Transportation GIS*

**Sun Yat-Sen University** (SYSU)                  GPA: 3.8/4.0                      *Guangzhou, China, 2015*
- B.S. in Geographic Information Systems (Department of Remote Sensing and GIS Engineer, School of Geography and Planning)
- Awards: Excellent Graduate (2015), Excellent Student Scholarship (2012, 2013, 2014)

## SKILLS

- **Programming & Data Analysis:** Python · JAVA · C# · R · Matlab · C++ · C · VB;    SPSS · Gephi · Tableau;    Visual Studio · Eclipse
- **Development:** JavaScript · ASP.NET MVC · HTML · CSS · Android · PHP (learning);    SQL · PostGIS (PostgreSQL) · SQL Server
- **GIS & Remote Sensing:** ArcGIS (ArcMap, Pro, Server, Engine) · QGIS · TransCAD · GeoDa;    Envi · ERDAS · Google Earth Engine
- **Design & Media**: Photoshop · Illustrator · Dreamweaver · CorelDraw · Flash · Authorware · AutoCAD · After Effect

## APPLICATION DEVELOPMENT

**[Web App]** UW Cartography Lab Website – Reconstruction (*geography.wisc.edu/cartography*)          *Aug 2018 – Present*
- Revise the webpage by SQL querying artifacts from server database and interactively visualize them with embedded Box object

**[Web App]** Georgia Governmental Project: GNAHRGIS-Ecology Website (*ecology.gnahrgis.org*)          *Jan 2016 – Jul 2017*
- Achieved advanced spatial analysis function and UI interactions (using ArcGIS API and jQuery) in framework of ASP.NET MVC
- Improved database (10+ tables) structure in SQL Server and implemented the query with Ajax and Dojo

**[Web App]** Hackathon Project: Smart Traveling (Economic Fueling Solution for Long-Trip Drive)          *Oct 2016*
- Utilized ArcGIS API for JavaScript to conduct GIS spatial analysis (i.e. buffer, route) and visualization
- Developed user interface and interactions with HTML and jQuery from scratch within 24 hours

**[Desktop App]** Automatic Typhoon Recognition and Integrated 2D-3D Visualization System          *Mar 2015 – Jun 2015*
- Visualized typhoon speed, direction and centers in 2D and 3D synchronously Using ArcGIS Engine in C# . NET.

**[Mobile App]** SYSU Campus Navigation APP (1st Prize in 2014 ESRI China College Student GIS App Dev Contest) *May 2014 – Sep 2014*
- Built Android app with core GIS modules (map, positioning, navigation) and additional functions (email feedback, spatial measurement) using ArcGIS Android SDK and other 3rd-part SDKs], with innovations in user-friendly designs

**[Desktop App]** Cellular-Automata Urban Sprawl Simulation System with Suitability Evaluation          *Oct 2012 – Jan 2013*
- Collaborated in design and implementation using Visual Basic (published on *Collection of SYSU Excellent Undergraduate Thesis*)

## RESEARCH PROJECT

Examining Spatiotemporal Pattern in Evacuation Behavior during Hurricane Season          *Oct 2017 – Present*
- Extract evacuation trajectories from Twitter, visualize spatiotemporal patterns of human mobility with influence of hurricanes

Associating Socioeconomics with Sentiments on 2016 U.S Presidential Election in Georgia          *Sep 2016 – Aug 2017*
- Designed a multi-strategy framework and predicted voting results with socioeconomics and Twitter-based sentiment

Location-Based Social Media and Emotional Geographies: A Case Study of Twitter in Atlanta          *Mar 2016 – Aug 2016*
- Analyzed the associations among demographic characteristics and Tweet-based emotional indicators

Spatiotemporal Analysis of Emotional Space in Guangzhou Based on Geo-tagged Microblog          *Feb 2015 – May 2015*
- Generated emotional-spatiotemporal zoning by spatial clustering the emotions from microblog data

Settlement Geography under Garrison and Military Cultivation System in South China from 14 to 19 Century     *Mar 2015 – May 2015*
- Established historical GIS database and conducted spatiotemporal analysis with population, race, clan, military and immigration (Served as undergraduate research assistant in Center for Historical Geography, SYSU)

Spatiotemporal Analysis of Social Hot Spots Based on Microblog Geo-tagged Data          *Sep 2014 – Jan 2015*
- Visualized the spatiotemporal pattern and mobility of centroid (weighted mean center) of social events on microblog (Served as undergraduate research assistant in Big Data and Communication Lab, SYSU)

Planning Research on Harmonious Development of Villages and Towns in Shaoguan City          *Dec 2013 – Jul 2014*
- Applied Transportation Dominance Index to planning model, conducted analysis and cartography (published in official atlas) (Served as undergraduate research assistant in CIGNA-Center of Integrated Geographic Information Analysis, SYSU)

Research on Administrative Adjustment Based on Urban Hinterland and Central Place Theory          *Apr 2014 – May 2014*
- Designed an Urban Hinterland Model based on gravity model and evaluated the change quantitatively *(Served as undergraduate research assistant in CIGNA, SYSU)*