

CHENXIAO (ATLAS) GUO

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SUMMARY

Seeking Internship (Summer 2020): GIS Developer / Cartographer / GIS Analyst

- International **Ph.D.** student in Geography (**Cartography / GIS**) with Minor (Master expected) in **Computer Science**
- Research direction in natural disaster management with **Geospatial Analysis / Geo-AI / Cartographic Visualization**
- Rich hands-on experience in **GIS Application Development** with strong **Programming** skills

EDUCATION

University of Wisconsin-Madison (UW-Madison)

Madison, WI, 2021 (Expected)

- Ph.D. Student in Geography (Department of Geography), subarea of Cartography / GIS, current GPA: 3.8/4.0
- Minor (Master expected) in Computer Sci (Course: Data Structure, Algorithm, AI, Machine Learning, Computer Graphics)
- Research Assistant at UW Cart Lab; Teaching Assistant on *Intro GIS, GIS Applications, Geo-computing; Intro Cartography*

University of Georgia (UGA)

Athens, GA, 2017

- M.S. in Geography (Department of Geography), GPA: 3.7/4.0
- Research Assistant at Carl Vinson Institute of Government (App-Dev Group); Teaching Assistant on *Transportation GIS*

Sun Yat-Sen University (SYSU)

Guangzhou, China, 2015

- B.S. in GIS (Department of Remote Sensing and GIS Engineering, School of Geography and Planning), GPA: 3.8/4.0
- Research Assistant in Center of Integrated Geo-Info Analysis, Historical Geography Center, Big Data Communication Lab
- Excellent Graduate (2015), Excellent Student Scholarship (2012, 2013, 2014)

SKILLS

- **GIS · Remote Sensing:** ArcGIS (ArcMap, Pro, Server, Engine) | QGIS | TransCAD | GeoDa; Envi | ERDAS
- **Development · Database:** JavaScript | Html | CSS | ASP.NET MVC | Android; SQL | PostgreSQL | SQL Server
- **Programming · Analysis:** Python | Java | C# | R | Matlab | SPSS | Gephi; Intermediate: VB | C++ | C | Pascal
- **Design · Media:** Photoshop | Illustrator | Flash | After Effect | Dreamweaver | CorelDraw | AutoCAD

RESEARCH

Flight or Driving? Mining Transportation Mode in Hurricane Harvey Evacuation

May 2019 - Present

- Build a decision-tree prediction model considering spatiotemporal characteristics, semantics and transportation features

Examining Spatiotemporal Pattern in Evacuation Behavior during 2017 Hurricane Season

Oct 2017 - Apr 2019

- Visualized and examined spatiotemporal and semantic patterns with influence of hurricanes, using Tweet-based trajectories

Associating Socioeconomics with Sentiments on 2016 U.S. Presidential Election in Georgia

Sep 2016 - Aug 2017

- Designed a multi-scenario analytical framework; predicted voting results with socioeconomics and Tweet-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 zones by spatiotemporally clustering the text-based emotions from microblogs

Settlement Geography under Garrison and Military Cultivation System in 14 to 19 Century's South China

Mar 2015 - May 2015

- Created historical GIS database; conducted spatiotemporal analysis with population, race, clan, military and immigration

Spatiotemporal Analysis of Social Hot Spots Based on Geo-tagged Microblog Data

Sep 2014 - Jan 2015

- Visualized the spatiotemporal pattern and mobility of spatial centroid (weighted mean center) of social events on microblog

Planning Research on Harmonious Development of Villages and Towns in Shaoguan City

Dec 2013 - Jul 2014

- Built a Transportation Dominance Index model in planning; conducted spatial analysis (published in official atlas)

Evaluating Administrative Adjustment Based on Urban Hinterland and Central Place Theory in Jieyang City

Apr 2014 - May 2014

- Designed an Urban Hinterland Model based on gravity model; quantified the evaluation of administrative change

GIS DEVELOPMENT

[Web GIS] U.S. Historical Hurricanes Geovisualization (https://uwcartlab.github.io/19_g575_HurricaneViz/)

Mar 2019 - May 2019

- Built the query-able interactive map and charts (Leaflet framework and jQuery, D3, jQueryUI, turf libraries)

[Web GIS] Georgia Governmental Project: GNAHRGIS-Ecology Website (<https://ecology.gnahrgis.org/>)

Jan 2016 - Jul 2017

- Achieved advanced spatial queries and UI interactions (ArcGIS Server API and jQuery) in ASP.NET MVC
- Improved database structure (10+ tables) in SQL Server and implemented the frontend query with Ajax and Dojo

[Web GIS] 24-hr Hackathon Project: Smart Traveling (Economic Fueling Solution for Long-Trip Drive)

Oct 2016

- Conducted GIS analysis and visualization using ArcGIS JavaScript API and built webpage UI and interactions using jQuery

[Desktop GIS] Automatic Typhoon Recognition and Integrated 2D/3D Visualization System

Mar 2015 - Jun 2015

- Visualized typhoon speed, direction and centers in 2D/3D synchronously using ArcGIS Engine in C#.NET.

[Mobile GIS] SYSU Campus Navigation (1st Prize in 2014 ESRI China College Student GIS App Dev Contest)

May 2014 - Sep 2014

- Built user-friendly Android app with GIS modules (map, positioning, navigation) using ArcGIS Android SDKs

[Desktop GIS] Cellular-Automata Urban Sprawl Simulation System with Suitability Evaluation in Guangzhou

Oct 2012 - Jan 2013

- Collaborated in model design and implementation in VB (published on *Collection of SYSU Excellent Undergraduate Thesis*)