



🎓 EDUCATION

University of Wisconsin-Madison (UW-Madison)

(Madison, WI, USA; 2025 Expected)

- Ph.D. in Geography (Cartography/GIS), [Department of Geography](#)
 - Core Courses: Graphic Design in Cartography, Interactive Cartography & Geovisualization; Advanced Quantitative Analysis, Advanced Geocomputing and Big Data Analytics, Geospatial Database, GIS Applications; Seminars in GIScience (VGI; Deep Learning; Storytelling); Natural Hazards and Disasters (audit)
- Doctoral Minor in Computer Science, [Department of Computer Science](#)
 - Core Courses: Data Structure, Algorithms, Artificial Intelligence, Computer Graphics, Human-Computer Interaction, Machine Learning (audit)
- Research Direction: Social Media Data Mining, Cartographic Visualization, Natural Disaster Management Spatiotemporal Analytics, GeoAI – Bridging geospatial data science, cartography, and social good
- GPA: 3.7/4.0

University of Georgia (UGA)

(Athens, GA, USA; 2017)

- M.S. in Geography (GIS), [Department of Geography](#)
 - Core Courses: Statistical Method in Geography, Geospatial Analysis, Community GIS, Programming for GIS, Seminars in GIScience, Geographic Research Method, Satellite Meteorology and Climatology, Seminar in Climatology, Urban Geography (audit), Psychology (audit)
- Research Direction: Location-based Social Media, Sentiment Analysis, Urban Spatiality, Electoral Geography
- GPA: 3.7/4.0

Sun Yat-sen University 中山大学 (SYSU)

(Guangzhou, China; 2015)

- B.S. in Geographic Information Systems (Remote Sensing and GIS),
Department of Remote Sensing and GIS Engineering 遥感与地理信息工程系,
[School of Geography and Planning 地理科学与规划学院](#)
 - Core Courses: Physical Geography, Geology and Geomorphology, Mathematical Geography; Human Geography, Urban Geography, History of Geographical Thoughts; Surveying, Digital Survey and Mapping, Map Projection and Cartographic Design, GNSS Positioning; Physics of RS, RS Image Processing, RS Image Interpretation (Field), Quantitative RS, Photogrammetry; Spatial Analysis Principles and Applications, Web GIS, GIS Software Engineering, GIS English; Advanced Mathematics, Linear Algebra, Probability and Statistics, General Physics; Computer Fundamentals, Data Structures, VB, Advanced Programming, Object Oriented Programming
- Research Direction: Public Opinion Geovisualization, Urban Ecology and Regional Planning, Historical GIS
- GPA: 3.8/4.0

Chinese Culture University 中國文化大學 (PCCU)

(Taipei, China; 2013)

- Summer Exchange Program
- Main Courses: Lecture Series of Chinese Culture 中國文化通識系列講座,
Preservation of Cultural Relics in National Palace Museum 國立故宮博物院文物保護

Student Cartographer, University of Wisconsin Cartography Lab ([Website](#))

- Multiple clients project (static map productions) (Summer 2024 – Present)
- Website update and maintenance (Spring 2024 – Present)

Teaching Assistant, UW-Madison Geography Department ([Curriculum](#))

- Geog 572: Graphic Design in Cartography (using HTML/JS/CSS, Mapbox, ArcGIS StoryMaps) (Fall 2024)
- Geog 575: Interactive Cartography and Geovisualization (using HTML/JS/CSS, Leaflet, D3) (Spring 2024)
- Geog 370: Intro Cartography (using ArcGIS Desktop/Pro, Illustrator; including curriculum upgrade from ArcGIS Desktop to Pro in Fall 2020) (Fall 2023; Spring 2021; Fall 2020; Spring 2020; Fall 2019)
- Geog 170: Our Digital Globe: An Overview of GIScience and Its Technology (using Google Earth, ArcGIS Online; including curriculum upgrade in homework assignments, quizzes, and final exam) (Spring 2023; Fall 2022; Spring 2022; Fall 2021)
- Geog 578: GIS Applications (using QGIS, ArcGIS) (Spring 2019; Spring 2018)
- Geog 378: Intro Geo-computing (using Python) (Fall 2018)
- Geog 377: Intro Geographic Information Systems (using ArcGIS) (Fall 2017)

Lecturer, UW-Madison Geography Department ([Curriculum](#))

- Geog 370: Intro Cartography (using ArcGIS Pro, Illustrator) (Summer 2024; Summer 2022; Summer 2021)
(Organized a semi-public guest lecture series including 4 talks from excellent cartographers / scholars)

Project Assistant, UW-Madison GIS Professional Program ([Curriculum](#))

- Geog 572: Graphic Design in Cartography (using ArcGIS Pro, Illustrator, Photoshop) (Summer 2020)
(including curriculum upgrade from ArcGIS Desktop to Pro)
- Geog 370: Intro Cartography (using ArcGIS Pro, Illustrator) (Winter 2021)
(including curriculum upgrade from ArcGIS Desktop to Pro)

Teaching Assistant, UGA Geography Department ([Curriculum](#))

- Geog 4380 / 6380: Transportation Modeling and GIS (using TransCAD, ArcGIS) (Fall 2015)

University of Wisconsin-Madison

- Graduate Student Member, Spatial Computing and Data Mining Lab ([Website](#))
 - Multimodal Social Media Data Mining and Visualization For Disaster Management (Mar 2022 – Present)
 - Compared performance of multiple machine learning methods based on Twitter texts and images, including Contrastive Language-Image Pre-training (CLIP) model, and applied the multimodal approach to extract disaster relevant information from an extinct dataset
 - Generate visualization of best-performed model results
 - Presented in AAG Annual Conference 2023 ([Conference](#)), CaGIS + UCGIS Symposium 2024 ([Conference](#)), AAG Annual Conference 2025 ([Conference](#))
 - Investigating Human Mobility During Pandemic: An Integrated Social Media Approach (Nov 2020 – May 2022)
 - Investigated associations among socioeconomic characteristics with the mobility pattern from Twitter-based movement trajectories and Facebook-based county-level connectivity.
 - Presented in AAG Annual Conference 2021 ([Conference](#))
 - Framing Twitter Trajectory Visualization: A Comparison Between 2017 Hurricane Evacuation and 2020 Coronavirus Pandemic Lockdown (Jul 2020 – Oct 2020)
 - Summarized general forms of trajectory geo-visualization with focused discussion on Twitter dataset; compare two typical disaster scenarios (hurricane evacuation and pandemic lockdown)
 - Presented in IEEE VIS 2020 “MoVIS” Workshop ([Conference](#), [YouTube](#))
 - Flight or Driving? Mining Transportation Mode in Hurricane Harvey Evacuation (May 2019 – Nov 2020)
 - Built machine learning models considering spatiotemporal characteristics, semantics, and transportation features to estimate transportation mode at segment level and visualize the spatiotemporal pattern
 - Presented in AAG Annual Conference 2019, AutoCarto 2020 ([Online Proceedings](#)), NACIS 2021 (Map Gallery), BTAA GIS Conference 2023 ([Map Gallery](#))
 - Examining Spatiotemporal Pattern in Evacuation Behavior during 2017 Atlantic Hurricane Season (Oct 2017 – Apr 2019)
 - Visualized and examined spatiotemporal and semantic patterns of Tweet-generated moving trajectories with influence of hurricanes
- Graduate Student Member, UW Cartography Laboratory ([Website](#))
 - Adaptive Cartography in Natural Disaster Management: A Domain Gap Analysis (Mar 2020 – Oct 2020)
 - Conducted a gap analysis on recent interactive mapping practices under the context of natural disaster management, including a framework of 3 dimensions, 16 perspectives, and 191 individual items
 - Presented in NACIS 2020 Conference ([Conference](#), [YouTube](#))
 - Madison and Vicinity: A Tangible Map Quilt (Sep 2018 – Dec 2018)
 - Contributed a map block using dot density and choropleth displaying the population density of individual ethnicity groups
 - Published on Cartographic Perspectives ([DOI: 10.14714/CP95.1615](#)), Presented in NACIS 2019 ([NACIS 2019 Map Gallery](#)), AAG 2023 ([Paper Presentation](#))
- Collaboration with UGA Urban Geospatial Analytics (UrGA) Lab ([Website](#))
 - Male or Female? Evaluating the Gender Representativeness of Twitter – A Case Study of Clarke County, Georgia (Jan 2020 – May 2020)
 - Calculated gender representativeness of Twitter dataset using profile-based gender inference algorithm, and visualized the local spatial pattern
 - Presented in UCGIS Symposium 2020 ([Poster Gallery](#))
 - Can We Forecast Presidential Election Using Twitter Data? An Integrative Modelling Approach (Dec 2018 – Jul 2020)
 - Participated in building multiple machine learning models to predict county level election voting results and generating maps and charts.
 - Published on Annuals of GIS ([DOI: 10.1080/19475683.2020.1829704](#))

University of Georgia

- Graduate Student Member, GIS Research Lab (now Urban Geospatial Analytics Lab)([Website](#))
 - Associating Socioeconomics with Sentiments on 2016 U.S. Presidential Election in Georgia (Sep 2016 – Aug 2017)
 - Designed a multi-scenario analytical framework using Twitter dataset; predicted voting results with socioeconomics and Tweet-based sentiment
 - Master Thesis available at [UGA Theses and Dissertations](#)
 - Presented in AAG Annual Conference 2017
 - 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 based on Twitter data in Atlanta
- Graduate Student Member, Community Mapping Lab ([Website](#))
 - Athens Wellbeing Project (with Community Mapping Lab and Community GIS course)(Jan – May 2016)
 - Investigated and collected qualitative and quantitative data in domain of life-long learning, with spatial analysis and visualization
- Graduate Research Assistant, Application Development Group, IT Outreach Services, Carl Vinson Institute of Government ([Website](#))(Spring 2016, Fall 2017, Spring 2017, Summer 2017)

Sun Yat-sen University

- Undergraduate Research Assistant, Center of Integrated Geographic Information Analysis 综合地理信息研究中心 (Fall 2014, Spring 2015)
 - Planning Research on Harmonious Development of Villages and Towns in Shaoguan City (Dec 2013 – Jul 2014)
 - Built a Transportation Dominance Index model in planning and conducted geospatial analysis
 - Published in official project atlas (collaborated with Bureau of Urban and Rural Planning Shaoguan City)
 - Research on Ecological Value and Compensation Mechanism in the Southwestern Shunde District (Aug 2014 – Nov 2014)
 - Evaluated the economic development rights and built a model of Transportation Dominance Index, assisted in making compensation scheme and policy
 - Collaborated with Bureau of Planning and Statistics in Shunde District of Foshan City
 - 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
- Undergraduate Research Assistant, Big Data Communication Lab 大数据传播实验室 (Spring 2015)
 - Spatiotemporal Analysis of Emotional Space in Guangzhou Based on Geo-tagged Microblog (Feb 2015 – May 2015)
 - Generated emotional-spatiotemporal zones by spatiotemporally clustering text-based emotions from microblogs check-in data in Guangzhou
 - 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
- Undergraduate Research Assistant, Center for Historical Geography 历史地理研究中心 (Spring 2015)
 - 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 (see [follow-up research](#))

United Nations Development Programme (UNDP)

- [Web GIS] [Small Island Developing States \(SIDS\) Geospatial Dashboard](#) (Jul 2021 – Dec 2021)
 - Collaborated in GIS dashboard development based on Mapbox JS packages
 - Achieved front-end features such as histogram legend and bivariate choropleth, and UI improvement
 - Prepared vectorized layers from multi-source datasets, created automatic data processing pipeline, and provided relevant technical support for UNVs (United Nation Volunteers).

University of Wisconsin-Madison

- [Web GIS] [The United States of Rising Hazards](#) (2025)
 - Unitize Esri ArcGIS JavaScript API to build up an interactive version of the previous award-winning static map [The United States of the Blooming Risks](#).
- [Web/Mobile GIS] Madison Area and Wisconsin COVID-19 Pandemic Dashboard (May 2020 – May 2023)
 - Utilize Esri dashboard embedding ArcGIS Online interactive map to visualize daily pandemic and relevant infographics in Dane County, WI; Include desktop and mobile versions for Chinese and English interface, plus a statewide interactive map with similar visualization.
 - Total 80K Views; about 500 daily views during pandemic days (for all platforms).
 - Included by [UW Data Science](#), [WLIA](#), [Esri Covid-19 Map Gallery](#)
 - Reported by Channel 3000 News on Oct 10, 2020: 'Improve their awareness of danger': UW-Madison Ph.D. student creates COVID-19 data dashboard ([News Article](#), [YouTube](#); Reprint by [News Break](#), [Ground News](#))
 - Reported by Channel 3000 News on Oct 27, 2020: A geographic shift: Majority of Dane County COVID-19 cases now outside Madison ([News Article](#), [YouTube](#); Reprint by [FOX47](#), [Badger Herald](#))
 - Reported by Badger Herald News on Nov 9, 2020: PHMDC moves to crisis model of contact tracing, illustrates need to prevent COVID-19 spread ([News Article](#); Reprint by [News Break](#))
- [Web GIS] U.S. Historical Hurricanes Geovisualization ([Link](#)) (Mar 2019 – May 2019)
 - Built query-able interactive map and charts (Leaflet framework and jQuery, D3, jQueryUI, turf libraries)

University of Georgia

- [Web GIS] Georgia Governmental Project: GNAHRGIS-Ecology Website ([Link](#)) (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 with Ajax and Dojo
- [Web GIS] 24-hr Hackathon: 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

Sun Yat-sen University

- [Desktop GIS] Automatic Typhoon Recognition and Integrated 2D/3D Visualization System 自动台风识别与二/三维一体可视化系统 (Mar 2015 – Jun 2015)
 - Visualized the speed, direction and centers of typhoon in 2D/3D interfaces synchronously using ArcGIS Engine in C# .NET framework
- [Mobile GIS] Android App: iSYSU Map (Sun Yat-sen University Campus Navigation System) 安卓应用: 中山大学南校区校园导航系统 (May 2014 – Sep 2014)
 - Built user-friendly app with GIS modules (map, positioning, navigation) using ArcGIS Android SDKs ([Wandoujia App Store](#))
- [Desktop GIS] Cellular-Automata Urban Sprawl Simulation System with Suitability Evaluation in Guangzhou 元胞自动机城市扩张模拟系统与适用性评价——以广州市为例 (Oct 2012 – Jan 2013)
 - Collaborated in model design and implementation in Visual Basic
 - Published on Collection of SYSU Excellent Undergraduate Paper

Static Map

- 1st Place, Thematic Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2025)
- 1st Place, Black & White Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2025)
- 2nd Place, Reference Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2025)
- 2nd Place, Mapping Poster, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2025)
- Best Student Map (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2025)
- Map featured on cover page of [Cartographic Perspectives, Volume 105](#) (2025)
- *Map selected for publication, [Esri Map Book, Volume 40](#) (2025)
- *Map selected for publication, [Esri Map Book, Volume 40](#) (2025)
- Winner (sole) in Maps Group (\$25), [Mapping Masterminds Competition](#), Iowa State University GIS Day (2024)
- 2 maps selected for [Map Expo](#) Exhibit (for public educational purpose), displayed in local government building and 3 public libraries, Highlands County (FL) Board of County Commissioners (2024)
- Winner (sole) in Research (\$500), NACIS 2024 [Student Map and Poster Competition](#) (2024)
- Highly Commended (2nd place), Collins Bartholomew Award for Thematic Mapping & Infographics, [British Cartographic Society](#) (2024)
- Commended (tied 4th place), Garsdale Design Award for 3D Mapping, [British Cartographic Society](#) (2024)
- Winner (sole) in College Student Project (\$25), [AGIC Symposium Maps and Apps Contest](#) (2024)
- 1st Place, Most Innovative Map, [Esri User Conference](#) (2024)
- Best Cartography Award (sole), [Esri User Conference](#) (2024)
- Cartography Special Interest Group Excellence Award (1 of 3 recipients), [Esri User Conference](#) (2024)
- 1st Place, University and Postgraduate Student Maps, [Esri User Conference](#) (2024)
- Map selected in "cARTography" [Map Art Wall](#), [Esri User Conference](#) (2024)
- Map featured in [Plenary Session](#) by Esri President Jack Dangermond, [Esri User Conference](#) (2024)
- Map featured in [Plenary Session](#) by Esri President Jack Dangermond, [Esri User Conference](#) (2024)
- Winner (sole) in Student Artistic Group, [GIS Colorado Mapping Contest](#) (2024)
- Map selected for publication, [Atlas of Design, Volume VII](#) (2024)
- Honorable Mention (tied 2nd place), [UW-Madison 15th Annual Digital Salon](#) (2024)
- Map admitted, [UW-Madison 15th Annual Digital Salon](#) (2024)
- 2nd Place, Thematic Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- 1st Place, Black & White Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- 1st Place, Most Unique Map, [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- Keynotes Choice for Static Map (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- Best Student Map (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- President's Choice (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- People's Choice of Adult Group (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2024)
- Map selected for publication, [Esri Map Book, Volume 39](#) (2024)
- Winner in Cartographic Design (tied) (\$500), NACIS 2023 [Student Map and Poster Competition](#) (2023)
- Cartography Special Interest Group Excellence Award (1 of 3 recipients), [Esri User Conference](#) (2023)
- Most Innovative Map (sole), [Esri User Conference Map Gallery](#) (2023)
- Map featured in [Plenary Session](#) by Esri President Jack Dangermond, [Esri User Conference](#) (2023)
- Winner (sole), Arthur Robinson Static Print Map Award (\$500), [50th CaGIS Map Design Competition](#) (2023)
- 3rd Place in Student Category, [GIS Certification Institute \(GISCI\) Map Contest](#) (2023)
- Map on exhibition, [International Cartographic Exhibition](#) of International Cartographic Conference (2023)
- Honorable Mention (2nd place), [UW-Madison 14th Annual Digital Salon](#) (2023)
- Map admitted, [UW-Madison 14th Annual Digital Salon](#) (2023)
- Map admitted, [UW-Madison 12th Annual Digital Salon](#) (2021)
- Map ranked top 2% of 600+ submissions, [Esri User Conference Map Gallery](#) (2020)

Interactive Map

- Honorable Mention, David Woodward Digital Map Award in [52th CaGIS Map Design Competition](#) (2025)
- Dashboard endorsed by [UW Data Science](#), [WLIA](#), [Esri Covid Map Gallery](#); reported by [News](#) 3 times (2022)
- Honorable Mention (1 of 4 recipients), David Woodward Digital Map Award in [48th CaGIS Map Design Competition](#) (2021)
- Best Student Map (sole), [Wisconsin Land Information Association \(WLIA\) Map Contest](#) (2021)
- 1st Prize in Web/Mobile Group, [Esri Chinese College Student GIS Software Development Contest](#) ([Contest News](#), [Campus News](#)) (2014)

Academic

- Scholarship for CaGIS & UCGIS Symposium ([\\$150](#)), International Cartographic Association (2024)
- 1st Place of 2022 Most Downloaded Paper Award, [Annals of GIS](#) (3rd author) (2022)
- 3rd Place of 2022 Best Paper Award, [Annals of GIS](#) (3rd author) (2022)
- Excellent Graduate Award, SYSU (2015)
- Excellent Student Scholarship, SYSU (2012, 2013, 2014)
- 3rd Prize in the 6th Geographical Cultural Presentation Preliminary Contest in Southern China (2012)

Conference/Travel Grant

- Conference Travel Award ([\\$500](#)), Department of Geography, UW-Madison (2024)
- NACIS 2024 Conference Travel Grant ([\\$500](#)) (2024)
- Trewartha-Odebolt Conference Travel Award ([\\$500](#)), Department of Geography, UW-Madison (2024)
- NACIS 2023 Conference Travel Grant ([\\$500](#)) (2023)
- Trewartha-Odebolt Conference Travel Award ([\\$500](#)), Department of Geography, UW-Madison (2022)
- NACIS 2021 Conference Travel Grant ([\\$500](#)) (2021)
- Trewartha-Odebolt Conference Travel Award ([\\$500](#)), Department of Geography, UW-Madison (2021)
- AAG Spatial Analysis and Modeling (SAM) Specialty Group Student Travel Awards ([\\$250](#)) (2021)
- Holtz Center for STS ([\\$28](#)), Grant for Virtual Conference (AutoCarto), UW-Madison (2020)
- Holtz Center for STS ([\\$20](#)), Grant for Virtual Conference (NACIS), UW-Madison (2020)
- Student Research Conference Travel Award ([\\$600](#)), UW-Madison (2019)
- Trewartha-Odebolt Conference Travel Award ([\\$500](#)), Department of Geography, UW-Madison (2019)

Art

- Editors' Pick, 2016 Southeastern Geographer Photo Contest (2017)
- Logo Bid Winner, Center of Integrated Geographic Information Analysis, SYSU (2013)
- 3rd Place of Hard Brush Chinese Calligraphy, "Yixian Cup" Lingnan Painting & Calligraphy Competition 逸仙杯岭南书画大赛 (2012)

PUBLICATION

- A. Guo. (2025). *Atlas at a Conference: Flow*. Guerrilla Cartography.
- A. Guo. Book Review on *Atlas of Iowa*. University of Iowa Press. (In Progress)
- A. Guo. (2025). *LEGO Topographic Map of Wisconsin*. ESRI Map Book, Volume 40. Esri Press. (In Process)
- A. Guo. (2025). *Visualizing Historical Hurricanes in Contiguous U.S. (1851–2021)*. ESRI Map Book, Volume 40. Esri Press. (In Process)
- A. Guo. (2024). *Zibo Map of Culture and Tourism*. *Atlas of Design, Volume VII*. North American Cartographic Information Society.
- C. Guo. (2024). *Revealing Hurricane Harvey: Through the Lens of Twitter-Based Trajectories*. *ESRI Map Book, Volume 39*. Esri Press.
- C. Guo, Q. Huang. *Multimodal Social Media Data Learning and Visualization for Hurricanes*, International Journal of Disaster Risk Reduction. (In Process)
- C. Guo, Q. Huang. *Flight or Driving? Mining and Exploring Evacuation Behaviors During 2017 Hurricane Harvey*. Cartography and Geographic Information Science. (In Process)
- X. Li, H. Xu, X. Huang, C. Guo, Y. Kang, X. Ye. (2021). *Emerging Geo-Data Sources to Reveal Human Mobility Dynamics During COVID-19 Pandemic: Opportunities and Challenges*, *Computational Urban Science*, 1(1), 1–9. <https://link.springer.com/article/10.1007/s43762-021-00022-x>
- C. Guo, Q. Huang. (2021). *Examining Spatiotemporal and Sentiment Patterns of Evacuation Behavior During 2017 Hurricane Harvey*. In *Empowering Human Dynamics Research with Social Media and Geospatial Data Analytics* (pp. 139–165). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-83010-6_8
- R. Liu, X. Yao, C. Guo, X. Wei. (2020). *Can We Forecast Presidential Election Using Twitter Data? An Integrative Modelling Approach*. *Annals of GIS*, 1–14. <https://www.tandfonline.com/doi/full/10.1080/19475683.2020.1829704>
- R. Roth, et al. (2020). *Madison and Vicinity: A Tangible Map Quilt*. Cartographic Perspectives. <http://doi.org/10.14714/CP95.1615>
- Q. Huang, C. Guo. (2017). *Public Sentiment and Movement Patterns during Natural Hazards*. AGU Fall Meeting. <https://ui.adsabs.harvard.edu/abs/2017AGUFMIN31F..05H/abstract>
- C. Guo. (2017). *Associating Socioeconomic Characteristics with Sentiments: A Case Study of 2016 U.S Presidential Election*. University of Georgia Theses and Dissertations. <https://exploro.libs.uga.edu/esploro/outputs/9949334586002959>
- C. Guo. (2015). *Exploring Emotional Space in Guangzhou Based on Microblog Check-in Data*. Sun Yat-sen University Theses.
- C. Guo. (2014). Illustrated Article “*Become A GISer with Good Mapping Skills*”. *How to Be a GISer* (E-Book, 1st edition).
- H. Cui, G. Chen, L. Yuan, C. Guo. (2013). *Urban Cellular Automata Model and Suitability Evaluation: A Case of Guangzhou*. Collection of SYSU Excellent Undergraduate Paper.

ASSOCIATION

- **NACIS**: North American Cartographic Information Society (2020, 2021, 2022, 2023, 2024, 2025)
- **CaGIS**: Cartography and Geographic Information Society (2020, 2022, 2023, 2024, 2025)
- **IEEE GRSS**: Geoscience and Remote Sensing Society (Reviewer)(2020, 2021, 2023, 2024)
- **WLIA**: Wisconsin Land Information Association (2024, 2025)
- **WMS**: Washington Map Society (2024, 2025)
- **CMS**: Chicago Map Society (2024, 2025)
- **WisLUG**: Wisconsin LEGO User Group (2024, 2025)
- **Earth Sciences**, Science Publishing Group (Reviewer)(2020, 2021)
- **AAG**: American Association of Geographers (2017, 2019, 2020, 2021, 2022, 2023, 2025)
- **SEDAAG**: Southeast Division of American Association of Geographers (2016)

CONFERENCE (*not attend in person)

- North American Cartographic Information Society (NACIS) 2025 Annual Meeting (Louisville, KY, Oct 2025; Planned)
- 2025 Esri User Conference, Map Gallery (San Diego, CA, July 2024; Planned)
- American Association of Geographers (AAG) 2025 Annual Meeting, [Paper Presentation](#) (Detroit, MI, Mar 2025)
- Wisconsin Land Information Association (WLIA) 2025 Annual Conference, [Map Gallery](#) (Appleton, WI, Feb 2025)
- North American Cartographic Information Society (NACIS) 2024 Annual Meeting, [Lightning Talk](#) for Practice Cartography Day (PCD) and Map Gallery (Tacoma, WA, Oct 2024)
- *British Cartographic Society Annual Conference, [Map Gallery](#) (London, UK, Sep 2024)
- *Map Industry Summit: Toronto, [Map Gallery](#) (Toronto, Canada, Aug 2024)
- *GeoCart'2024 – New Zealand National Cartographic Conference, [Map Gallery](#) (Wellington, New Zealand, Aug 2024)
- *Arizona Geographic Information Council (AGIC) Education & Training Symposium, [Maps & Apps Gallery](#) (Prescott, AZ, Aug 2024)
- *2024 Esri User Conference, [Map Gallery](#) (San Diego, CA, July 2024)
- CaGIS + UCGIS Symposium 2024, [Poster Presentation](#) (Columbus, OH, Jun 2024)
- *2024 Elevations Geospatial Summit, [Map Contest](#) (Saratoga, WY, May 2024)
- *Wisconsin Land Information Association (WLIA) 2024 Annual Conference, [Map Gallery](#) (Green Bay, WI, Feb 2024)
- *Big Ten Academic Alliance (BTAA) GIS Conference, [Map Gallery](#) (Virtual, Nov 2023)
- North American Cartographic Information Society (NACIS) 2023 Annual Meeting, Map Gallery (Pittsburgh, PA, Oct 2023)
- *International Cartographic Conference (ICC 2023), [International Cartographic Exhibition](#) (not attend in person) (Cape Town, South Africa, Aug 2023)
- *2023 Esri User Conference, [Map Gallery](#) (San Diego, CA, July 2023)
- American Association of Geographers (AAG) 2023 Annual Meeting, [Paper Presentation](#) (Denver, CO, Apr 2023)
- UW-Madison Annual Research Bazaar, Panel Presentation (Madison, WI, Feb 2023)
- North American Cartographic Information Society (NACIS) 2022 Annual Meeting, Map Gallery (Minneapolis, MN, Oct 2022)
- North American Cartographic Information Society (NACIS) 2021 Annual Meeting, Map Gallery (Oklahoma City, OK, Oct 2021)
- *American Association of Geographers (AAG) 2021 Annual Meeting, [Paper Presentation](#) (Virtual, Apr 2021)
- *23rd International Research Symposium on Cartography and GIScience (AutoCarto 2020), [Paper Presentation](#) (Virtual, Nov 2020)
- *IEEE VIS 2020 Workshop on Information Visualization of Geospatial Networks, Flows and Movement (MoVIS), [Paper Presentation](#) (Virtual, Oct 2020)
- *North American Cartographic Information Society (NACIS) 2020 Annual Meeting, [Paper Presentation](#) and Map Gallery (Virtual, Oct 2020)
- *2020 Esri User Conference, [Map Gallery](#) (Virtual, July 2020)
- *UCGIS Symposium 2020, [Poster Gallery](#) (Virtual, Jun 2020)
- *American Association of Geographers (AAG) 2020 Annual Meeting, (Virtual, Apr 2020)
- American Association of Geographers (AAG) 2019 Annual Meeting, [Paper Presentation](#) (Washington, DC, Apr 2019)
- American Association of Geographers (AAG) 2017 Annual Meeting, Paper Presentation (Boston, MA, Apr 2017)
- Southeast Division of American Association of Geographers (SEDAAG) 2016 Annual Meeting (Columbia, SC, Nov 2016)
- Georgia Informatics Symposium (Athens, GA, Oct 2016)
- Georgia Geospatial Conference (Athens, GA, Oct 2016)
- 2014 Annual Academic Meeting of the Geographical Society of China (GSC) (Chengdu, China, Oct 2014)
- International Conference on Geo-simulation and Crime Geography (Guangzhou, China, Jul 2014)

Guest Talk

- [Geo-Ruckus](#) (Monthly Virtual Speakers Series), [GIS Colorado: LEGO Topographic Mapping](#), https://www.youtube.com/watch?v=M_xL1eX7yqc (Nov 7, 2024)
- [Map Chat](#), GIS Professional Program, University of Wisconsin-Madison: *A Cartographic Journey with Atlas Guo*, <https://www.youtube.com/watch?v=yBcVeyCzLTY> (Dec 4, 2024)
- UCCS GES Geoviz Guest Lecture, Department of Geography and Environmental Studies, [University of Colorado - Colorado Springs](#): *A Journey of Geovisualization* (Dec 4, 2024)
- School of Environmental and Geographical Sciences, [Shanghai Normal University](#) (China) (Dec 30, 2024)
- School of Geographic Sciences, [East China Normal University](#) (China) (Dec 31, 2024)
- GEOG 5026 Visualisation & Map Use, School of Geographical & Earth Sciences, [University of Glasgow](#) (UK) (Mar 18, 2025)
- [Geography Club](#), University of Wisconsin-Madison (Apr 1, 2025)
- GRG 356 Cartography, Department of Geography and Environment, [University of Texas at Austin](#) (Apr 8, 2025)
- ENVS 250 Fundamentals of Cartography and GIS, Department of Environmental Sciences, [University of Emory](#) (Apr 8, 2025)

News Report

- *March 2025 MadGeogNews*, A Newsletter of the UW-Madison Department of Geography, https://geography.wisc.edu/madgeognews?mailpoet_router&endpoint=view_in_browser&action=view&data=WzUxLCI3MTkyZWYwOTM1NWliLDI4MTQsljFicDhsYTBpNXp3a2tra2c0NDBjbzR3NDQ4a3M4b2c4liwzMiwWxQ (Mar 20, 2025)
- *Cartography Lab Students Win Awards, Share Insights, and Collaborate at Annual NACIS Meeting*, MadGeogNews (official news of UW-Madison Department of Geography), <https://geography.wisc.edu/madgeognews/2024/11/27/cartography-lab-students-win-awards-share-insights-and-collaborate-at-annual-nacis-meeting/> (Nov 27, 2024)
- *Inspiring stories of early 1900s Chinese Badgers draw large audience of students...and family members*, Wisconsin China Resource, <https://china.wisc.edu/2024/05/09/inspiring-stories-of-early-1900s-chinese-badgers-draw-large-audience-of-students-and-descendants/> (May 9, 2024)
- *Chinese Ph.D Student in the U.S. Created 'Zibo Map of Culture and Tourism'*, Zibo Daily Newspaper, reprinted by Tencent News, <https://app.zbnews.net/shares/tuwen.html?newsType=1&newsId=77161027420553216>, <https://news.qq.com/rain/a/20240430A01EV300> (Apr 30, 2024)
- *Historical and Cultural Heritage Goes Global! A Map Brings More Brilliance to Zibo*, Zibo Luzhong Morning Post (Dazhong News Group), <https://news.lzcb.com/shares/tuwen.html?newsType=1&newsId=77158228910407680> (Apr 29, 2024)
- *Chinese Badgers commemoration connects families, examines historic student impacts*, The Daily Cardinal, <https://www.dailycardinal.com/article/2024/04/chinese-badgers-commemoration-connects-families-examines-historic-student-impacts> (Apr 11, 2024)
- *LEGO Map of Wisconsin sweeps recent map contest awards*, MadGeogNews (official news of UW-Madison Department of Geography), <https://geography.wisc.edu/madgeognews/2024/03/12/lego-map-of-wisconsin-sweeps-recent-map-contest-awards/> (Mar 12, 2024)
- *PHMDC moves to crisis model of contact tracing, illustrates need to prevent COVID-19 spread*, The Badger Herald, reprinted by News Break, <https://badgerherald.com/news/2020/11/09/phmdc-moves-to-crisis-model-of-contact-tracing-illustrates-need-to-prevent-covid-19-spread/> (Nov 9, 2020)
- *A geographic shift: Majority of Dane County COVID-19 cases now outside Madison*, Channel 3000, reprinted by FOX47 and Badger Herald, https://www.channel3000.com/news/coronavirus/a-geographic-shift-majority-of-dane-county-covid-19-cases-now-outside-madison/article_18e77913-8c50-55d8-a140-64bdaa55e4e0.html (Oct 27, 2020)
- *'Improve their awareness of danger': UW-Madison Ph.D. student creates COVID-19 data dashboard*, Channel 3000, reprinted by News Break and Ground News, https://www.channel3000.com/news/coronavirus/improve-their-awareness-of-danger-uw-madison-ph-d-student-creates-covid-19-data-dashboard/article_b4f365c8-ab06-5646-812a-42b0808d3131.html (Oct 10, 2020)

Library Inclusion

- Library of Congress (Washington, D.C.): *Visualizing Historical Hurricanes in Contiguous U.S.*, as winner of Arthur Robinson Static Print Map Award in CaGIS Map Design Competition (Apr 2022)
- Robinson Map Library (Madison, WI): *LEGO Map of Wisconsin*, by donation (Mar 2024)
- American Geographical Society Library (Milwaukee, WI): *Lego Map of North America*, by donation (Mar 2025)

TV News Video

- 'Improve their awareness of danger': UW-Madison Ph.D. student creates COVID-19 data dashboard, Channel 3000 (CBS television station affiliated with WISC-TV / Channel 3), <https://www.youtube.com/watch?v=I2VAqPdUnoY> (Oct 10, 2020)
- A geographic shift: Majority of Dane County COVID-19 cases now outside Madison, Channel 3000 (CBS television station affiliated with WISC-TV / Channel 3), <https://www.youtube.com/watch?v=-TbqZpS0wII> (Oct 27, 2020)

Online Article

- *Data Vis Dispatch of December 3: The best of last week's big and small data visualizations*, Datawrapper Blog, <https://www.datawrapper.de/blog/data-vis-dispatch-december-3-2024> (Dec 3, 2024)
- *Identifying Places with Power Outages after Hurricane Helene*, "Visualising Data" Newsletter – Issue #10 November 2024, <https://visualisingdata.kit.com/posts/the-visualising-data-newsletter-issue-10-november-2024> (Nov 17, 2024)
- *The United States of Natural Disasters*, Maps.com, and its Newsletter (Volume 1, Issue 4), <https://www.maps.com/the-united-states-of-natural-disasters/>, <https://go.maps.com/webmail/1013562/456911926/5c12af2be4c76735349f74fa4e5b2775cb317e84afb4a2b8a9ade48f080469a1> (Jul 29, 2024)
- *Helene power outages mapped*, Flowingdata, <https://flowingdata.com/2024/10/03/helene-power-outages-mapped/> (Oct 3, 2024)
- *Madison Area and Wisconsin Covid-19 Pandemic Dashboard* was featured on [UW Data Science](#), [WLIA](#), [Esri Covid-19 Map Gallery](#)

Public Display

- LEGO Public Display at Madison Children's Museum, Madison, WI. (May 3-4, 2025, expected)
- WisLUG Build Display Day at West Towne Barnes & Noble Bookstore, Madison, WI (230+ visitors). 8 LEGO Maps and 1 poster were on display. (Apr 5, 2025)
- LEGO Showcase at Hedberg Public Library, Janesville, WI (650+ visitors). 8 LEGO Maps and 1 poster were on display. (Mar 8, 2025)
- "Map Expo" Traveling Exhibition by Highlands County (FL) Board of County Commissioners. It was firstly on display in the government building for GIS Day, and then moved to 3 public libraries till mid-December of 2024, https://www.facebook.com/Highlandsfl.gov/posts/886823380243006?ref=embed_post. Two maps were selected: *Visualizing Historical Hurricanes in Contiguous U.S. (1851-2021)*, and *The United States of Blooming Risks*.
 1. Government Center lobby (Nov 18-22, 2024) (600 S. Commerce Ave., Sebring)
 2. Avon Park Public Library (Nov 25-27, 2024) (100 N. Museum Ave., Avon Park)
 3. Sebring Public Library (Dec 2-8, 2024) (319 W. Center Ave., Sebring)
 4. Lake Placid Memorial Library (Dec 10-15, 2024) (205 W. Interlake Blvd., Lake Placid)
- UW-Madison 15th Digital Salon Exhibition at College Library: *Zibo Map of Culture and Tourism*, as Honorable Mention Award (Apr 2024 – Apr 2025)
- UW-Madison 14th Digital Salon Exhibition at College Library: *Scenic Formosa Island*, as Honorable Mention Award (Apr 2023 – Apr 2024)
- UW-Madison 12th Digital Salon Exhibition at College Library: *Home Metro Map* (Apr 2021 – Apr 2022)

SKILLS

- **Geospatial · Cartography**
ArcGIS (Desktop, Pro, Online, Dashboards, Server, Engine, StoryMaps)
QGIS | TransCAD | GeoDa | Envi | ERDAS | PCI Geomatics | Google Earth Engine
Mapbox | Leaflet | D3 | OpenStreetMap | Blender | Kepler.gl
- **Graphic Design · Media**
Illustrator | Photoshop | LEGO Studio | Blender | After Effect
Flash | CorelDraw | AutoCAD | Dreamweaver | Authorware
- **Development · Database**
JavaScript | HTML | CSS | ASP.NET MVC | Android Development
SQL | PostgreSQL (PostGIS) | SQL Server | MongoDB | AWS
- **Programming · Analysis**
Python | Java | C# | R | MATLAB | SPSS | Gephi | Visual Basic | C++ | Pascal
- **Miscellaneous**
Art: Seal Carving 篆刻 | Chinese Calligraphy | English Calligraphy | Photography | Watercolor Painting
Music: Irish Whistle (Low & Tin) | Guqin 古琴 | Bawu 巴乌 | Chinese Flute
Language: English | Mandarin | Cantonese

EXTRACURRICULAR

- Cartography Intern at [Apple Maps](#) (Jun – Aug 2025)
- Volunteer in Dataset Cleaning, [Natural Earth](#) (Nov 2023 – Present)
- GIS Development Intern at [United Nations Development Programme, Global Centre for Technology, Innovation and Sustainable Development](#) (Sep 2021 – Dec 2021)
- GIS and Data Visualization Intern at [Community Broadband Networks Initiative, Institute for Local Self-Reliance](#) (Feb 2021 – May 2021)
- News Cartographer, Covid Pandemic Cartographer (Jun 2020 – Aug 2024), MADNEWS 麦迪讯, the largest Chinese media platform in Madison, WI (WeChat: Madison_news, [Facebook Page](#))
- Volunteering Cartographer, Shanghai Dérive 魔都漂移 (Dec 2024 – Present)
- Designer of Logo for UW-Madison [Spatial Computing and Data Mining Lab](#) (Mar 2020)
- Guqin and Tin/Low Whistle Player, [Ensemble of Asian Musical Instrument Community \(AMIC\)](#) 琴识明月, participating in 7 public performances in Madison and Milwaukee, WI (Sep 2017 – Apr 2019)
- Tin/Low Whistle Player, Irish music session groups in Athens, GA and Madison, WI (2019, 2023 – Present)
- Volunteer Editor, Facebook Group “[Human & Physical Geography](#)” (Feb 2016 – Aug 2017)
- Co-founder, UGA Traditional Chinese Clothing Club (Aug 2016 – Aug 2017)
- Volunteer and Assistant, UGA Chinese Student Fellowship (Apr 2016 – Aug 2017)
- Chair of Logistic Committee, first campus-wide UGA GIS Day ([Facebook Page](#)) (Jul 2016 – Nov 2016)
- Assistant in Advertising / Academics / Mental Health, SYSU Class of 2015 (GIS Major) (Sep 2012 – Jun 2015)
- Student Librarian, Library of Geography and Planning School, SYSU (Oct 2013 – May 2015)
- Communicating Volunteer and Assistant, “Blue Letter Project” Left-Behind Childcare Organization “[蓝信封行动](#)”留守儿童关爱组织 ([Website](#)) (Oct 2012 – May 2015)
- Deputy Director (Sep 2012 – Jun 2013), Assistant (Sep 2011 – Sep 2012) in Advertising, Student Union of Geography and Planning School, SYSU
- Assistant in Advertising, Lingnan Association of Calligraphy and Painting 岭南书画协会, SYSU (Oct 2011 – Sep 2012)
- Invention Patent: Bottle Cap for Water Bottle ([Google Patent](#)) (2011)
- Utility Model Patent: Water Bottle Cap ([Google Patent](#)) (2011)
- Utility Model Patent: Elastic Pen-Cap Clip ([Google Patent](#)) (2010)