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(Update on 10/19/2025)

EDUCATION

University of Wisconsin-Madison (UW-Madison)

(Madison, WI, USA; Ongoing)

- 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, GeoAl 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



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)



Student Cartographer (Spring 2024 - Present)

University of Wisconsin Cartography Lab (UWCL)

- Multiple clients project (static and interactive map productions)
- · Website update and maintenance

Cartography Intern (May 2025 – Aug 2025)

Apple Maps (Apple Inc.)

- Proposed a theory-based color refinement workflow and developed supporting tools to provide systematic and
 efficient design guidance
- · Contributed to developing new features via testing feedback and targeted design refinements
- Authored three articles on cartographic design for internal educational newsletters and advanced improvement in organizational resource management

GIS Development Intern (Sep 2021 - Dec 2021)

United Nations Development Programme (UNDP), Global Centre for Technology, Innovation and Sustainable Development

- 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)

GIS and Data Visualization Intern (Feb 2021 - May 2021)

Institute for Local Self-Reliance (ILSR), Community Broadband Networks

- Designed a total of 67 static thematic maps for multiple projects
- · Collaborated with Community Broadband Network and other Initiatives

App Development Research Assistant (Jan 2016 - Jul 2017)

UGA Carl Vinson Institute of Government (CVIOG)

- Georgia's Natural, Archaeological, and Historic Resources GIS (GNAHRGIS) Ecology Website Development
- · 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



University of Wisconsin-Madison

- Graduate Student Member, Spatial Computing and Data Mining Lab (Website)
 - o 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)
 - o 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)
 - o 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)
 - o 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)
 - o 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
 - o 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)

GIS DEVELOPMENT

University of Wisconsin-Madison

- [Web GIS] The United States of Rising Hazards (Jan 2025)
 - Unitized Esri ArcGIS JavaScript API to build up an interactive version of my static map The United States of the Blooming Risks.
- [Web/Mobile GIS] Madison Area and Wisconsin COVID-19 Pandemic Dashboard (May 2020 May 2023)
 - Utilized 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 (Mar 2019 May 2019)
 - Built query-able interactive map and charts (Leaflet framework and jQuery, D3, jQueryUI, turf libraries)

United Nations Development Programme (UNDP)

[Web GIS] Small Island Developing States (SIDS) Geospatial Dashboard (Jul 2021 - Dec 2021)

University of Georgia

- [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
- [Web GIS] Georgia Governmental Project: GNAHRGIS-Ecology (with CVIOG) (Jan 2016 Jul 2017)

Sun Yat-sen University

- o [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)
- o [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

AWARD & ACHIEVEMENTS (*publication in progress)

Static Map

- Winner (sole), Ordnance Survey Student Award (£100), British Cartographic Society (2025)
- Map on exhibition, International Cartographic Exhibition of International Cartographic Conference (2025)
- Finalist, Map with a Message, Esri User Conference Map Gallery (2025)
- Finalist, Innovative Map, Esri User Conference Map Gallery (2025)
- Map featured in Mappy Hour, Esri User Conference (2025)
- Map featured in Plenary Session by Esri President Jack Dangermond, Esri User Conference (2025)
- Longlist, Unusual, Information Is Beautiful Awards 2024 (2025)
- Longlist, Places, Spaces & Environment, Information Is Beautiful Awards 2024 (2025)
- Longlist, Places, Spaces & Environment, Information Is Beautiful Awards 2024 (2025)
- Best-In-Show / 1st place, UW-Madison 16th Annual Digital Salon (2025)
- Map admitted, UW-Madison 16th Annual Digital Salon (2025)
- Map admitted, UW-Madison 16th Annual Digital Salon (2025)
- Map admitted, UW-Madison 16th Annual Digital Salon (2025)
- Map admitted, UW-Madison 16th Annual Digital Salon (2025)
- 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

- Winner (sole), Individual Category (\$500), NACIS 2025 Student Dynamic Map Competition (2025)
- Highly Commended / 2nd place (1 of 3 recipients), Avenza Award for Electronic Mapping, British Cartographic Society (2025)
- Finalist, Interactive Web Map, Esri User Conference Map Gallery (2025)
- Longlist, Places, Spaces & Environment, Information Is Beautiful Awards 2024 (2025)
- Map admitted, UW-Madison 16th Annual Digital Salon (2025)
- Honorable Mention / 2nd place, 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). Review of Atlas of lowa. Cartographic Perspectives. https://doi.org/10.14714/CP107.2059
- A. Guo. (2025). Floods of Lava in Washington, Atlas at a Conference: Flow. Guerrilla Cartography.
- A. Guo. (2025). Zibo Map of Culture and Tourism. ESRI Map Book, Volume 40. Esri Press.
- A. Guo. (2025). Visualizing Historical Hurricanes in Contiguous U.S. (1851–2021). ESRI Map Book, Volume 40. Esri Press.
- 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://esploro.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 (*journal paper reviewer)

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

CONFERENCE (*not attend in person)

- North American Cartographic Information Society (NACIS) 2025 Annual Meeting, Lightning Talk for Practice Cartography Day (PCD) and Map Gallery (Louisville, KY, Oct 2025)
- *British Cartographic Society Annual Conference, Map Gallery (Keyworth, UK, Sep 2025)
- *International Cartographic Conference (ICC 2025), International Cartographic Exhibition (Vancouver, Canada, Aug 2025)
- 2025 Esri User Conference, Map Gallery (San Diego, CA, Jul 2025)
- 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, Jul 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 (Cape Town, South Africa, Aug 2023)
- *2023 Esri User Conference, Map Gallery (San Diego, CA, Jul 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, Jul 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)

BROADER IMPACT

Guest Talk

- Wisconsin LEGO User Group (WisLUG) Madison Meeting: LEGO Topographic Mapping for Non-Geographers (Sep 14, 2025)
- ART 217 Digital Imaging, Department of Art and Design, Messiah University: Cartography 101 for Art Students (Sep 8, 2025)
- SSGC 7204 Smart Governance, Faculty of Social Sciences, University of Macau: Introduction to Thematic Cartography Through Mapping Practices for Smart Governance (Apt 30, 2025)
- ENVS 250 Fundamentals of Cartography and GIS, Department of Environmental Sciences, University of Emory (Apr 8, 2025)
- GRG 356 Cartography, Department of Geography and Environment, University of Texas at Austin (Apr 8, 2025)
- Geography Club, University of Wisconsin-Madison (Apr 1, 2025)
- GEOG 5026 Visualisation & Map Use, School of Geographical & Earth Sciences, University of Glasgow (UK) (Mar 18, 2025)
- School of Geographic Sciences, East China Normal University (China): A Cartographic Journey with Atlas Guo and University of Wisconsin Cartography Lab (Dec 31, 2024)
- School of Environmental and Geographical Sciences, Shanghai Normal University (China) (Dec 30, 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)
- Geo-Ruckus (Monthly Virtual Speakers Series), GIS Colorado: LEGO Topographic Mapping, https://www.youtube.com/watch?v=M_xL1eX7yqc (Nov 7, 2024)

News Report

- Congratulations to Map Gallery and Special Achievement in GIS Winners, State Cartographer's Office (Wisconsin Geospatial News), https://www.sco.wisc.edu/2025/07/22/congratulations-to-map-gallery-and-special-achievement-in-gis-winners/ (Jul 22, 2025)
- 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=Wz
 UxLCI3MTkyZWYw0TM1NWIiLDI4MTQsljFicDhsYTBpNXp3a2tra2c0NDBjbzR3NDQ4a3M4b2c4liwzMiwwXQ (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

- American Geographical Society Library (Milwaukee, WI): Lego Map of North America, by donation (Mar 2025)
- Robinson Map Library (Madison, WI): LEGO Map of Wisconsin, by donation (Mar 2024)
- 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)

TV News Video

- 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)
- '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)

Online Article

- United States of Rising Hazards, "Visualising Data" Newsletter Issue #18 September 2025.
- 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

- "Star War"-Themed LEGO Public Display at Madison Children's Museum, Madison, WI. 9 LEGO Maps and 1 poster were on display. (May 3-4, 2025)
- 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 16th Digital Salon Exhibition at College Library: A Mini Gallery of LEGO Topographic Maps, as Best-In-Show Award (Apr 2025 Apr 2026)
- UW-Madison 16th Digital Salon Exhibition at College Library: United States of Blooming Risks: An Aggregated Mosaic of FEMA National Risk Index of 18 Natural Hazards (Apr 2025 Apr 2026)
- UW-Madison 15th Digital Salon Exhibition at College Library: *Zibo Map of Culture and Tourism*, as Honorable Mention Award (Apr 2024 Apr 2026)
- 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 | InDesign | LEGO BrickLink Studio | Blender After Effect | Flash | CorelDraw | AutoCAD | Dreamweaver | Authorware

• Development · Database

JavaScript | HTML | CSS | ASP.NET MVC | Android Development SOL | PostgreSOL (PostGIS) | SOL 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

SEXTRACURRICULAR

- Co-founder and Cartographer, Shanghai Dérive 魔都漂移 (Dec 2024 Present)
- Volunteer in Dataset Cleaning, Natural Earth (Nov 2023 Present)
- 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)
- 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)