

## EDUCATION

### University of Wisconsin-Madison (UW-Madison)

(Madison, WI, USA; 2024 Expected)

- Ph.D. in Geography (Cartography/GIS), [Department of Geography](#)
  - Core Courses: Graphic Designs 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 (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

**UW-Madison GIS Professional Program (Project Assistant) ([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)

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

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

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

- 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)

**UGA Geography Department (Teaching Assistant) ([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.
    - Presented in AAG Annual Conference 2023 ([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 – Present)
    - 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 Data Science Lab
  - 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 visualize 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 Data Science Lab)
  - 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

- [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 provide relevant technical support for UNVs (United Nation Volunteers).

### University of Wisconsin-Madison

- [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

### Printed Map

- Map Selected for Publication, [Esri Map Book, Volume 39](#) (2024)
- 1st Place / Winner in Cartographic Design (tied), [NACIS 2023 Student Map and Poster Competition](#) (2023)
- Cartography Special Interest Group Excellence Award, [Esri User Conference](#) (2023)
- 1st Place / Most Innovative Map, [Esri User Conference Map Gallery](#) (2023)
- Map Selected for Image Inclusion, [Jack Dangermond's Plenary Session](#) in Esri User Conference (2023)
- 1st Place / Winner, Arthur Robinson Static Print Map Award in [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)
- 2nd Place / Honorable Mention, [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)

### Digital Map

- Dashboard Endorsed by [UW Data Science](#), [WLIA](#), [Esri Covid Map Gallery](#); Reported by [News 3 Times](#) (2022)
- Honorable Mention, David Woodward Digital Map Award in [48th CaGIS Map Design Competition](#) (2021)
- 1st Place / Best Student Map, [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

- 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)
- Excellent League Student, SYSU (2012, 2013, 2014)
- 3rd Prize in the 6th Geographical Cultural Presentation Preliminary Contest in Southern China (2012)

### Travel Grant

- NACIS 2023 Conference Travel Grant (2023)
- Trewartha-Odebolt Conference Travel Award, Department of Geography, UW-Madison (2022)
- NACIS 2021 Conference Travel Grant (2021)
- AAG Spatial Analysis and Modeling (SAM) Specialty Group Student Travel Awards (2021)
- Holtz Center for STS, Grant for Virtual Conference (AutoCarto), UW-Madison (2020)
- Holtz Center for STS, Grant for Virtual Conference (NACIS), UW-Madison (2020)
- Student Research Conference Travel Award, UW-Madison (2019)
- Trewartha-Odebolt Conference Travel Award, 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

---

- C. Guo. (2024). Visualizing Historical Hurricanes in Contiguous United States (1851-2021). [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](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/exploro/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)
- [CaGIS](#): Cartography and Geographic Information Society (2020, 2022, 202)
- [IEEE GRSS](#): Geoscience and Remote Sensing Society (Reviewer) (2020, 2021, 2023, 2024)
- [Earth Sciences](#), Science Publishing Group (Reviewer) (2020, 2021)
- [AAG](#): American Association of Geographers (2017, 2019, 2020, 2021, 2022, 2023)
- [SEDAAG](#): Southeast Division of American Association of Geographers (2016)

- 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, 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)



- **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 | CorelDraw | Inkscape | AutoCAD  
Flash | After Effect | 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 (Tin, Low) | Guqin 古琴 | Bawu 巴乌 | Chinese Flute  
Language: English | Mandarin | Cantonese

## EXTRACURRICULAR

---

- 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 – Present), 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 \(AMIC\)](#) 琴识明乐, 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)