**YANAN WU**

+1 (607) 372-0368 | [ywu@uca.edu](mailto:ywu@uca.edu)

[Google Scholar](https://scholar.google.com/citations?user=xVDuszoAAAAJ&hl=en) | [Personal Website](https://gisynw.github.io/) | [LinkedIn](http://www.linkedin.com/in/giswu) | [GitHub](http://github.com/gisynw) | [Medium](https://ywu120766.medium.com/)

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| **EDUCATION** | | |
| **Doctor of Philosophy in Geospatial Information Sciences** | | **May 2024** |
| The University of Texas at Dallas  Dissertation: Analysis of Space-Time Events as Individuals, Sequences, and Surfaces | | |
| **Master of Arts in Geography** | | **May 2019** |
| Binghamton University  Thesis: Integration of Earth Observations and In Situ data for analyzing lake level changes in Minnesota (1990-2016) | | |
| **Bachelor of Science** **in Resource Environment and Urban-Rural Planning Management** | | **May 2016** |
| Xi’an University of Science and Technology, China  Thesis: Analysis of Drought Evolvement Characteristics based on Temperature Vegetation Dryness Index (TVDI) in the Huaihe River Basin | | |
| **APPOINTMENTS** | | |
| * **Assistant Professor – The University of Central Arkansas** |  | |
| Field Techniques  GIS I - Cartography |  | |
| * **Visiting Assistant Professor – Clark University** | **2024-Present** | |
| Python Programming & Computer PROG for GIS  Web Mapping & Open-Source GIS | | |
| Intermediate Statistics  Spatial Database |  | |
| * **GIS Analyst – City of Lewisville** | **Summer 2024** | |
| Information Technology Services | | |
| * **Instructor – The University of Texas at Dallas** | **2021 – 2023** | |
| GISC 3304 Principles of Geospatial Information Sciences  EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Science | | |
| * **Teaching Assistant – The University of Texas at Dallas** | **2020-2024** | |
| GISC 6325 Remote Sensing Fundamentals  GISC 4325 Introduction to Remote Sensing  GISC 4386 Global Changes and its Challenges  GISC 3304 Principles of Geospatial Information Science  EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Science | | |
| * **Research Assistant – The University of Texas at Dallas** | **2019 – 2020** | |
| Participated in the NIST-funded research project: SAFE-NET An Integrated Connected Vehicle and Computing Platform for Public Safety Applications | | |
| * **Graduate Assistant – Binghamton University** | **2017 – 2019** | |
| Gathered 10k+ lake-level data using web crawling to ensure lake data quality and metadata standards for research  Analyzed and extracted information from multi-band remote sensing imagery using R-ArcGIS Bridge | | |
| **PUBLICATIONS** | | |
| **Wu, Y.**, Yang, Y., & Yuan, M. (2024). Location Analytics of Routine Occurrences (LARO) to Identify Locations with Regularly Occurring Events with a Case Study on Traffic Accidents.*Information*, 15(2), 107.  Yang, Y., **Wu, Y.**, & Yuan, M. (2024). What Local Environments Drive Opportunities for Social Events? A New Approach Based on Bayesian Modeling in Dallas, Texas, USA. *ISPRS International Journal of Geo-Information*, 13(3), 81.  **Wu, Y.**, Yang, Y., & Yuan, M. (2023). Understanding the role of geographical environments in emergency dispatches with GPS trajectories. *Abstracts of the ICA*, 6, 276.  **Wu, Y.**, & Yuan, M. (2021). Where and why there: location analytics of routine occurrences (LARO) with a case study on traffic accidents. *Abstracts of the ICA*, 3, 318. | | |
| **CONFERENCE PROCEEDINGS**  **Wu, Y.**, Yang, Y., Yuan, M. Analyze emergency-vehicle dispatches in Dallas, Texas, USA, *In AutoCarto* 2022 *Proceedings.*  Yang, Y., **Wu, Y.**, Yuan, M. Quantifying the impacts of social infrastructure on human networks, *In AutoCarto 2022 Proceedings.* | | |
| **AWARDS** | | |
| **2023** Second Place in Graduate Paper Competition, SWAAG conference  International Cartographic Association Scholarship  Travel award from USNC for ICA with NSF funding to attend the ICC2023  Betty & Gifford Johnson Travel Award, UTD  **2022** Graduate student participants of the Grad WINGS Workshop, UCGIS  International Cartographic Association Scholarship  Second Place, StudentLightning Talk Award, UCGIS Symposium  Third Place in GIS Day 2022 Awarded by Geospatial Information Sciences Program, UTD  Travel award from UCGIS to attend the UCGIS Symposium  The University of Texas at Dallas 2022 Three Minute Thesis (3MT) Competition, Finalist  Honorable mentions, GI Science & Systems Student Honors Paper Competition session, AAG  International Cartographic Association Scholarship  **2021** Travel award from USNC for ICA with NSF funding to attend the ICC2021  Pioneers Student Research Fund, Geospatial Information Sciences Program, UTD  PhD Research Small Grants Awarded by the Office of Graduate Education, UTD  First Place in GIS Day 2021 Awarded by Geospatial Information Sciences Program, UTD  **2019** First Place in GIS Day 2019 Awarded by Geospatial Information Sciences Program, UTD  Pioneers Student Research Fund, Geospatial Information Sciences Program, UTD  First Place in GIS Day 2019 Awarded by the Geography Department at Binghamton University  **2015** Outstanding Prize in GeoDesign at Esri GIS Software Development Contest | | |
| **PRESENTATIONS** | | |
| **2025** Reconstructing Historical Urban Landscapes: A Machine Learning Approach to 3D City Modeling, AAG, March  **2024** Understanding the role of geographical environments in emergency dispatch, *AAG*, March  **2023** Identify geographical environments influencing emergency response performance. *SWAAG*, November  Modeling of emergency incident with GPS trajectory data using random forest algorithm. *ICC*, August  Assessing the role of geographical context in modeling the likelihood of emergency response. *AAG*, April  **2022** Driving pattern analysis for emergency vehicle (EV)**.** *AutoCarto,* November  Understanding emergency vehicle movement from GPS trajectory data. *GIS Day in UTD*, November  Understanding 911 Response Time from GPS trajectory data. *UTD Research Day,* October  Driving pattern analysis for emergency vehicle (EV) using multi-source data. *UCGIS, Syracuse, NY,* June  Why is there a delay in a 911 vehicle arriving? The Three Minute Thesis (3MT) Competition, *UTD*, April  Location analytics of routine occurrences (LARO) to identify locations with regularly occurring events. *CO*, April  Location Analytics of Routine Occurrences (LARO) with a case study on traffic accidents. *AAG, New York,* February  **2021** location analytics of routine occurrences (LARO) with a case study on traffic accidents. *ICC, Italy,* December  Emergency vehicle data map-matching utilizing the Dijkstra’s Algorithm. *GIS Day in UTD*, November  Spatial-temporal analysis of traffic accidents for increasing sustainable transportation. *The Center for Spatial Studies*  The Three Minute Thesis (3MT) Competition. *The University of Texas at Dallas*, April  **2020** Research Showcase Poster Competition, EPPS. *The University of Texas at Dallas*, October  **2019** Visualizing (Wild) Fires in Sentinel-2 imagery using custom script in EO Browser. *GIS Day in UTD*, November  Developing an hourly risk model for street networks in Dallas. *SWAAG*, *Fort Worth, Texas.*October  Integration of Earth observations and in situ data for analyzing lake level changes. *GIS Day Binghamton University*,  Integration of Earth observations and in situ data for analyzing lake level changes. *AAG,* *Washington D.C*. April | | |

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| **JOURNAL REVIEWER** | | |
| Physica A: Statistical Mechanics and its Applications  International Journal of Geo-Information  Computational Urban Science | | |
| **ACADEMIC SERVICE** | | |
| **2022** Student judge for Faculty Three Minutes Thesis (3MT) Competition at UTD  USGIF Student Assistant Program at the 2022 GEOINT Symposium | | |
| **AREAS of RESEARCH** | | |
| * Geographic Information Science (GIS) | * Geospatial Data Science |
| * GIS Software Development | * Spatial-Temporal Analysis |
| * Urban dynamics | * Web-GIS |
| **PROFESSIONAL MEMBERSHIPS** | | | |
| **2019 – Present** American Association of Geographers (AAG)  **2020 – Present** Cartography and Geographic Information Society (CAGIS) | |