

# YANAN WU

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## EDUCATION

The University of Texas at Dallas	2019-2024
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Ph.D. student in Geospatial Information Sciences	Advisor: Dr. May Yuan
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Binghamton University	2019
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M.A. in Geography

Thesis: Integration of Earth observations and in situ data for analyzing lake level changes in Minnesota (1990-2016)

Advisor: Dr. Qiusheng Wu

Xi'an University of Science and Technology, China	2016
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B.S. in Resource Environment and Urban-Rural Planning Management.

Thesis: Analysis of drought evolution characteristics based on Temperature Vegetation Dryness Index (TVDI) in the Huaihe river basin. Advisor: Dr. Xiaoliang Shi

## APPOINTMENTS

The University of Texas at Dallas	2019-current
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• <b>Teaching Assistant</b> , Geospatial Information Sciences	2022-current
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GIS 6385 GIS Theories Models and Issues

EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Science

• <b>Instructor</b> , Geospatial Information Sciences	2021-2022
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GIS 3304 Principles of Geospatial Information Sciences

EPPS 2302 Methods of Quantitative Analysis in the Social and Policy Science

• <b>Teaching Assistant</b> , Geospatial Information Sciences	2020-2021
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GIS 6325 Remote Sensing Fundamentals

GIS 4325 Introduction to Remote Sensing

GIS 4386 Global Changes and its Challenges

GIS 3304 Principles of Geospatial Information Science

• <b>Research Assistant</b> , Geospatial Information Sciences	2019-2020
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Participated in the NIST-funded research project: SAFE-NET: An Integrated Connected Vehicle and Computing

Platform for Public Safety Applications

Binghamton University	2017-2019
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• <b>Graduate Assistant</b> , Department of Geography, 2017-2019
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Process global remote sensing image; detect changing pattern of lakes from GRACE data

## PUBLICATIONS

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** International Cartographic Association Scholarship

**2023** Travel award from USNC for ICA with NSF funding to attend the ICC2023

**2023** Betty & Gifford Johnson Travel Award, UTD  
**2022** Graduate student participants of the Grad WINGS Workshop, UCGIS  
**2022** International Cartographic Association Scholarship  
**2022** Second Place, Student Lightning Talk Award, UCGIS Symposium  
**2022** Third Place in GIS Day 2022 Awarded by Geospatial Information Sciences Program, UTD  
**2022** Travel award from UCGIS to attend the UCGIS Symposium  
**2022** The University of Texas at Dallas 2022 Three Minute Thesis (3MT) Competition, Finalist  
**2022** Honorable mentions, GI Science & Systems Student Honors Paper Competition session, AAG  
**2021** International Cartographic Association Scholarship  
**2021** Travel award from USNC for ICA with NSF funding to attend the ICC2021  
**2021** Pioneers Student Research Fund, Geospatial Information Sciences Program, UTD  
**2021** PhD Research Small Grants Awarded by the Office of Graduate Education, UTD  
**2021** 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  
**2019** Pioneers Student Research Fund, Geospatial Information Sciences Program, UTD  
**2019** First Place in GIS Day 2019 Awarded by Geography Department at Binghamton University  
**2015** Outstanding Prize in GeoDesign at Esri GIS Software Development Contest

## PRESENTATIONS

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**2023** Understanding the role of geographical environment in emergency dispatches, *ICC, South Africa*, August  
**2022** Driving pattern analysis for emergency vehicle (EV), *AutoCarto*, November  
**2022** Understanding emergency vehicle movement from GPS trajectory data, *GIS Day in UTD*, November  
**2022** Understanding 911 Response time from GPS trajectory data, *UTD Research Day*, October  
**2022** Driving pattern analysis for emergency vehicle (EV) using multi-source data, *UCGIS, Syracuse, NY*, June  
**2022** Why is there a delay in a 911 vehicle arriving? The Three Minute Thesis (3MT) Competition, *UTD*, April  
**2022** Location analytics of routine occurrences (LARO) to identify locations with regularly occurring events with a case study on traffic accidents, *USGIF GEOINT Symposium, Aurora, CO*, April  
**2022** Location analytics of routine occurrences (LARO) with a case study on traffic accidents, *Association of American Geographers (AAG), New York*, February  
**2021** Where and why there: location analytics of routine occurrences (LARO) with a case study on traffic accidents, *ICC conference, Florence, Italy*, December  
**2021** Emergency vehicle data map-matching utilizing the Dijkstra's Algorithm, *GIS Day in UTD*, November  
**2021** Spatial-temporal analysis of traffic accidents for increasing sustainable transportation, *The Center for Spatial Studies at UCSB*  
**2021** 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  
**2019** Developing an hourly risk model for street networks in Dallas, *SWAAG, Fort Worth, Texas*. October  
**2019** Integration of Earth observations and in situ data for analyzing lake level changes in Minnesota (1990-2016), *GIS Day in Binghamton University*, March  
**2019** Integration of Earth observations and in situ data for analyzing lake level changes in Minnesota (1990-2016). *Association of American Geographers (AAG), Washington D.C.* April

## ACADEMIC SERVICE

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**2022** Student judge for Faculty Three Minutes Thesis (3MT) Competition in UTD  
**2022** USGIF Student Assistant Program at the 2022 GEOINT Symposium

## CERTIFICATION

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Spatiotemporal Innovation Workshop Sentiment Analysis on Social Media, 2022

## AREAS of RESEARCH

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- Geographic Information Science (GIS)
- Urban Environment and Development
- Web-based Mapping and Information Processing
- Geospatial Data Science
- Spatial Analysis and Modeling
- Remote Sensing Digital Image Processing

## **RESEARCH SKILLS**

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Extensive experience in Python, R, ArcGIS, SPSS