YANAN WU

+1 (607) 372-0368 | yxw190021@utdallas.edu

gisynw.com | linkedin.com/in/giswu | github.com/gisynw | ywu120766.medium.com/

INTRODUCTORY PROFILE

PhD Student in the Geospatial Information Sciences Department at the University of Texas at Dallas, with a focus on spatial-temporal patterns, transportation geography, urban planning, and spatial data science. As a Graduate Research Assistant, I worked on a NIST project and was responsible for constructing spatial risk models of traffic accidents in Dallas. In addition to my research experience, I have 2 years of teaching experience as an independent instructor, guiding students in learning statistics and geographic information science (GIS).

PROFESSIONAL EXPERIENCE

The University of Texas at Dallas – US — August 2022 – Currently

Research project: Understanding the role of geographical environments in emergency dispatch

- Led the development, training, and testing of machine learning algorithms to predict unsuccessful emergency dispatch utilizing a large spatial-temporal dataset.
- Established interactive web maps to efficiently display spatial and temporal patterns of GPS trajectories using Python.
- Distinguished performance in paper competitions, demonstrating skills in algorithm application, and data analysis.

The University of Texas at Dallas – US — August 2019 – August 2020

Research Assistant: An Integrated Connected Vehicle and Computing Platform for Public Safety Applications

- Leveraged advanced statistical models to analyze the spatial-temporal pattern of traffic accidents in Dallas, and provide quarterly reports to supervisor, leading to one publication and presentations at various conferences.
- Initiated Medium blog posts on machine learning, Web-GIS development, and data processing using R, promoting writing skills and engaging in the online community.
- Actively create and maintain repositories to store, track, and share codes on GitHub.

The University of Texas at Dallas – US — August 2021 – May 2022

Instructor/Lecturer - Methods of Quantitative Analysis in the Social and Policy Science

- Independently instructed and facilitated discussions with 50 students on fundamental statistical concepts and methods, including statistics, probabilities, sampling, hypothesis tests, and regression.

Instructor/Lecturer – **Principles of Geospatial Information Sciences**

- Independently guided 10 students in the field of data integration for analytical purposes. Conducted interactive hands-on labs focused on the principles of mapping, charting, and data visualization. Successfully facilitated the development of proficiency in the use of Esri products, enhancing their geospatial data analysis skills.
- Received excellent performance comments from students and positive peer reviews, available on my personal website.

Binghamton University – US — October 2017 – May 2019

Graduate Assistant

- Analyzed and interpreted global remote sensing images and GRACE data to estimate precipitation in South Africa.

EDUCATION

The University of Texas at Dallas — August 2019 – May 2024

PhD Student in Geospatial Information Sciences

- Attained a deep understanding of statistical modeling, geospatial data analysis, and remote sensing image processing.

Binghamton University — Jan 2017 – May 2019

M.S. in Geography

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

Xi'an University of Science and Technology, China — August 2012 – August 2016

B.S. in Resource Environment and Urban-Rural Planning Management

- Conducted research in analyzing the drought evolvement characteristics based on the Temperature Vegetation Dryness Index (TVDI) in the Huaihe River basin.