XUANTONG WANG

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EDUCATION

University of Denver | Ph.D.
Geography, 2020

University of Pennsylvania | Master of Environmental Studies
Master of Environmental Studies, 2016

University of California - Berkeley | BS
Environmental Economics and Policy, 2014

WORK HISTORY

ASSISTANT PROFESSOR | 08/2021 to Present
Texas Tech University, TX

TEACHING ASSISTANT PROFESSOR | 08/2020 to 08/2021
University of Illinois - Urbana-Champaign, IL

GRADUATE TEACHING AND RESEARCH ASSISTANT | 09/2016 to 06/2020
University of Denver, CO

LECTURER | 09/2019 to 05/2020
University of Colorado - Denver, CO

MOBILITY TECHNOLOGY INTERN | 10/2019 to 05/2020
Colorado Department of Transportation, CO

AWARDS AND SCHOLARSHIPS

- Dr. Robert D. Rudd Memorial Award (2019)
- AAG Cyberinfrastructure Specialty Group Robert Raskin Competition Travel Award (2019)
- Microsoft Azure "AI for Earth" Grant (2018).
- Microsoft Azure "AI for Earth" Grant (2017).
- Doctoral Fellowship of Inclusive Engagement (2017)
- American Association of Geographers Poster Award (2016)
- University of Pennsylvania Student of the Year - Department of Earth and Environmental Science (2016)
- University of Pennsylvania Walker's Fund for Field Research (2015).

PUBLICATIONS

Manuscripts Published

Peer-Reviewed/Refereed

Book, Chapter in Scholarly Book-New

Wang, X., Li, J., Zhang, T. (2020). Building a GPU-Enabled Analytical Workflow for Maritime Pattern Discovery Using Automatic Identification System Data. *High Performance Computing for Geospatial Applications* (pp. 227-248). Springer.

Journal Article, Academic Journal

Wang, X., Ward, J., Yi, I., McElroy, M. W., Sutton, P. (2022). Supporting the Sustainable Development Goals: A context sensitive indicator for sustainable use of water at the facility level. *Sustainable Development*.

Sutton, P., Wang, X., Qi, B. (2022). Apostasy of an 'anti-assessment' curmudgeon: Developing a 'Geographic Concept Inventory' for assessing program level learning outcomes in a Department of Geography. *Annals of the American Association of Geographers*.

Costanza, R., Anderson, S. J., Sutton, P., Mulder, K., Mulder, O., Kubiszewski, I., Wang, X., Liu, X., P\'erez-Maqueo, Octavio, Martinez, M. L., others (2021). The global value of coastal wetlands for storm protection. *Global Environmental Change, 70*, 102328.

Li, J., Wang, X., He, Z., Zhang, T. (2021). A personalized activity-based spatiotemporal risk mapping approach to the COVID-19 pandemic. *Cartography and Geographic Information Science*, 1--17.

Qi, B., Wang, X., Sutton, P. (2021). Can Nighttime Satellite Imagery Inform Our Understanding of Education Inequality? *Remote Sensing, 13*(5), 843.

Li, J., Wang, X., Zhang, T. (2021). Sequence-based centrality measures in maritime transportation networks. *IET Intelligent Transport Systems, 14*(14), 2042--2051.

Wang, X., Li, J., Zhang, T. (2019). A Machine-Learning Model for Zonal Ship Flow Prediction Using AIS Data: A Case Study in the South Atlantic States Region. *Journal of Marine Science and Engineering, 7*(12), 463.

Wang, X., Sutton, P. C., Qi, B. (2019). Global Mapping of GDP at 1 km2 Using VIIRS Nighttime Satellite Imagery. *ISPRS International Journal of Geo-Information, 8*(12), 580.

Wang, X., Rafa, M., Moyer, J. D., Li, J., Scheer, J., Sutton, P. (2019). Estimation and Mapping of Sub-National GDP in Uganda Using NPP-VIIRS Imagery. *Remote Sensing, 11*(2), 163.

Li, J., Wang, X., Zhang, T., Xu, Y. (2018). Efficient Parallel K Best Connected Trajectory (K-BCT) Query with GPGPU: A Combinatorial Min-Distance and Progressive Bounding Box Approach. *ISPRS International Journal of Geo-Information, 7*(7), 239.

Ph.D. Thesis

Wang, X. (2020). *Using Multi-Source Data to Assess the Dynamics of Socioeconomic Development in Africa*. University of Denver.

Non-Peer-Reviewed/Refereed

Research Report

Moyer, J. D., Rafa, M., Sutton, P., Wang, X. (2017). *Estimating District GDP in Uganda*. Invited Research Paper for USAID. The Frederick S. Pardee Center for International Futures, University of Denver, Denver, CO. https://pardee. du. edu/estimating-district-gdp-uganda.

Rafa, M., Moyer, J., Wang, X., Sutton, P. (2017). *Estimating district GDP in Uganda*. Denver, Colorado: USAID.

CONFERENCE AND PRESENTATION

American Association of Geographers Annual Conference (2022)
Poster presentation: Can Nighttime Satellite Imagery Inform Our Understanding of Education Inequality
American Geophysical Union Conference (2019)
Poster presentation: A grid-based hierarchical decomposition strategy for memory-efficient LiDAR processing with GPUs
American Association of Geographers Annual Conference (2019)
Paper presentation: A spatiotemporal sequence mining approach for ship trajectory data
Paper presentation (co-presenter): Assessing Learning Outcomes in Geography and Environmental Science at the University of Denver
American Association of Geographers Annual Conference (2018)
Paper presentation: VisAIS: A multidimensional visualization client to support analysis of AIS information
Paper presentation (co-presenter): Using nighttime imagery to estimate Gross Domestic Product at sub-national levels in Africa
DURAP (2018)
Poster-presentation: Using Multi-Source geospatial data to assess the socioeconomic development in Africa
American Association of Geographers Annual Conference (2017)
Paper presentation: An analysis of global migratory birds' distribution
American Association of Geographers Regional Conference (2016)
Poster presentation: Conservation of Sui Minority Language in southern China

TEACHING EXPERIENCE

Position	Title	University
Assistant Professor	Intro to GIS	Texas Tech
Assistant Professor	Cartographic Design	Texas Tech
Teaching Assistant Professor	Spatial Problem Solving (GEOG 380)	UIUC
Teaching Assistant Professor	High Performance Geospatial Computing (GEOG 479/507)	UIUC
Teaching Assistant Professor	GeoAI and Machine Learning (GEOG 527)	UIUC
Teaching Assistant Professor	Geospatial Data Science for Knowledge Discovery in Illinois (GEOG 224)	UIUC
Lecturer	Geospatial Big Data	UC Denver
Lecturer	Cartography and Computer Mapping	UC Denver
Lecturer	Intro to GIS	UC Denver
Co-Instructor	Professional Development	DU