

Xi Gong

March 13, 2023

Department of Geography and Environmental Studies
University of New Mexico, xigong@unm.edu

Educational History

Ph.D. in Geographic Information Science, 2016, Texas State University, San Marcos, TX, USA
Dissertation: “Exploring Associations between Environmental Risk Factors and Low Birth Weight Using Big Geographic Data”
Advisor: F. Benjamin Zhan

M.Sc. in Cartography and Geographic Information Science, 2011, University of Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research, Beijing, China
Thesis: “Clustering Analysis on Temporal Point Processes”
Advisor: Tao Pei

B.Eng. in Spatial Informatics and Digitalized Technology (GIS & Software Engineering), 2008, Wuhan University, Wuhan, China
Thesis: “Analysis Method of Multi-scale Relevance on Spatial Random Field and Software Implementation”
Advisor: Yangge Tian

Employment History Part I

8/2019-present	Assistant Professor, Department of Geography and Environmental Studies, University of New Mexico, Albuquerque, NM
1/2019-7/2019	Lecturer III, Department of Geography and Environmental Studies, University of New Mexico, Albuquerque, NM
8/2016-12/2018	Visiting Assistant Professor, Department of Geography and Environmental Studies, University of New Mexico, Albuquerque, NM
2/2016-7/2016	Prospect Research Analyst, South Dakota State University Foundation, Brookings, SD
8/2011-5/2015	Research Assistant, Department of Geography, Texas State University, San Marcos, TX
8/2011-5/2015	Teaching Assistant, Department of Geography, Texas State University, San Marcos, TX
2/2008-6/2011	Research Assistant, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China
9/2006-1/2007	Teaching Assistant, International School of Software, Wuhan University, Wuhan, China

Employment History Part II

8/2019-present Affiliated Faculty, Center for Advancement of Spatial Informatics Research & Education (ASPIRE), University of New Mexico, Albuquerque, NM

Professional Recognition, Honors, etc.

Research and Academic Awards

Faculty Team Research Concept Competition, Runner Up Prize, University of New Mexico	2021
Provost's Conference Travel Award, University of New Mexico	2020
ESRI Graduate Awards for Excellence, Texas State University	2014, 2015
The Detlefsen Doctoral Dissertation Scholarship, Texas State University	2015
Graduate College Scholarships, Texas State University	2012, 2013, 2014, 2015
Associated Student Government Scholarship, Texas State University	2012, 2013, 2014
The Detlefsen Doctoral Candidate Scholarship, Texas State University	2014
Student Representative of Commencement Speech, Wuhan University	2008
Excellent Award for Graduation, Wuhan University (Top 10%)	2008
Outstanding Students of Hubei Province, Ministry of Education of Hubei (Only 19 students in Wuhan University)	2008
May-Fourth Medal, Wuhan University (Only 4 undergraduates)	2007
The National Scholarship, Ministry of Education of China (Top 1%)	2007
Annual First-class Scholarship, Wuhan University (Top 5%)	2005, 2006, 2007
Outstanding Students, Wuhan University (Top 5%)	2005, 2006, 2007
The Second Prize in the 3rd ESRI GIS Development Contest for College Students in China (Top 2-4 of 100 groups).	2006
HP Excellent Student Scholarship (Only 5 students in Wuhan University)	2006
The Citi Bank's Financial Information Technology Scholarship (Only 10 students in Wuhan University/200 students in China)	2006
1st Prize, Software Designing Contest, International School of Software, Wuhan University.	2006

Teaching Awards

Nomination of New Teacher of the Year Award, University of New Mexico 2021, 2022, 2023

Service Awards

College Assessment Review Committee (CARC) Assessment Grants, College of Arts and Sciences, University of New Mexico (\$1500) 2022

Scholarly Achievements

(* denotes that I serve as the corresponding author. Student or advisee are underlined)

Articles in Refereed Journals

Gong, X.*, Lu, Y., Beene, D., Li, Z., Hu, T., Morgan, M., Lin, Y. 2023. Understanding public perspectives on fracking in the United States using social media big data. *Annals of GIS*, 29 (1): 21-35. <https://doi.org/10.1080/19475683.2022.2121856> (Online first in Sep 2022)

Gong, X.*, Peng, S., Lu, Y., Wang, S., Huang, X., Ye, X. 2022. Social Network Analysis of Nonprofits in Disaster Response: The Case of Twitter during the COVID-19 Pandemic in the United States. *Social Science Computer Review*. <https://doi.org/10.1177/0894439322113067> (Online first on Sep 2022).

Lee, J., Park, Y. J., **Gong, X.** 2023. How do government grants affect Nonprofit financial effectiveness? The mediation role of process accountability. *Administration & Society*. 55(1): 122-157. DOI: 10.1177/00953997221112824 (Online first in July 2022)

Gong, X., Zhan, F.B. 2022. A method for identifying critical time windows of maternal air pollution exposures associated with low birth weight in offspring using massive geographic data. *Environmental Science and Pollution Research* 29, 33345–33360 (2022). DOI: 10.1007/s11356-021-17762-2.

Huang, X., Wang, S., Zhang, M., Hu, T., Hohl, A., **Gong, X.**, Li, J., Liu, X., Gruebner, O., Liu, R., Li, X., Liu, Z., Ye, X., Li, Z. Social media mining under the COVID-19 context: Progress, challenges, and opportunities, *International Journal of Applied Earth Observation and Geoinformation*, 113(March), 102967. <https://doi.org/10.1016/j.jag.2022.102967>.

Wu, L., Peng, Q., Lemke, M., Hu, T., **Gong, X.** 2022. Spatial social network research: a bibliometric analysis. *Computational Urban Science*. 2, 21 (2022). <https://doi.org/10.1007/s43762-022-00045-y>

Huang, X., Martin, Y., Wang, S., Zhang, M., **Gong, X.**, Ge, Y., Li, Z. 2022 The promise of excess mobility analysis: measuring episodic-mobility with geotagged social media data, *Cartography and Geographic Information Science*, 49:5, 464-478, DOI: 10.1080/15230406.2021.2023366

Gong, X., Ye, X. 2021. Governors fighting crisis: Responses to the COVID-19 pandemic across U.S. states on Twitter. *The Professional Geographer*. 73:4, 683-701 DOI:10.1080/00330124.2021.1895850

- Gong, X.***, Wang, Y. 2021. Exploring dynamics of sports fan behavior using social media big data - A case study of the 2019 National Basketball Association Finals. *Applied Geography*. 129(April 2021): 102438. DOI: 10.1016/J.APGEOG.2021.102438
- Ye, X., Du, J., **Gong, X.***, Na, S., Li, W., Kudva, S. 2021. Geospatial and Semantic Mapping Platform for Massive COVID-19 Scientific Publication Search. *Journal of Geovisualization and Spatial Analysis*. 5(2021): 5. DOI: 10.1007/s41651-021-00073-y
- Ye, X., Du, J., **Gong, X.***, Ye, Z, AL-Dohuki, S., Kamw, F. 2021. SparseTrajAnalytics: An interactive visual analytics system for sparse trajectory data. *Journal of Geovisualization and Spatial Analysis*. 5(2021): 3. DOI: 10.1007/s41651-020-00068-1
- Gong, X.***, Lane, K.M.D. 2020. Institutional Twitter Usage among U.S. Geography Departments. *The Professional Geographer*. 72(2): 219-237.
- Gong, X.***, Yang, X. 2020. Social media platforms. *The Geographic Information Science & Technology Body of Knowledge*, John P. Wilson (ed). DOI: 10.22224/gistbok/2020.3.2.
- Nagle-McNaughton, T., **Gong, X.**, Constantine, J.A. 2019. Implications of the modifiable areal unit problem for wildfire analyses. *Advances in Biology & Earth Sciences*. 4(3): 150-175
- Gong, X.**, Lin, Y., Bell, M.L., Zhan, F.B. 2018. Associations between maternal residential proximity to air emissions from industrial facilities and low birth weight in Texas, USA. *Environment International*. 120:181–198.
- Gong, X.**, Lin, Y., Zhan, F.B. 2018. Industrial air pollution and low birth weight: a case-control study in Texas, USA. *Environmental Science and Pollution Research*. (2018) 25: 30375.
- Lin, Y., Wan, N., Sheets, S., **Gong, X.**, Davies, A. 2018. A multi-modal relative spatial access assessment approach to measure spatial accessibility to primary care providers. *International Journal of Health Geographics*. 17:33.
- Gong, X.***, Zhan,F.B., Lin, Y. 2017. Maternal residential proximity to nuclear facilities and low birth weight in offspring in Texas. *Radiation and Environmental Biophysics*, 56 (1): 111-120.
- Gong, X.**, Brender, J.D., Langlois, P.H., Lin, Y., Zhan,F.B. 2016. Validity of the Emission Weighted Proximity Model in estimating air pollution exposure intensities in large geographic areas. *Science of the Total Environment*. 563–564: 478–485
- Lin, Y., **Gong, X.**, Mousseau, R. 2016. Barriers of female breast, colorectal, and cervical cancer screening among American Indians—Where to intervene? *AIMS Public Health*, 3 (4): 891-906.
- Lin, Y., **Gong, X.** 2016. Risk assessment of water pollution exposure to hazardous waste sites: A case study in Bexar county, Texas. *Papers in Applied Geography*, 2:4, 383-394.

Brender, J.D., Shinde, M.U., Zhan, F.B., **Gong, X.**, Langlois, P.H. 2014. Maternal residential proximity to chlorinated solvent emissions and birth defects in offspring: A Case-control study. *Environmental Health*, 13(96): 1-16.

Zhan, F.B., **Gong, X.**, Liu, X. 2014. Mark on the globe: A quest for scientific bases of geographic information and its international influence. *International Journal of Geographic Information Science*. 28(6): 1233-1245.

Pei, T., **Gong, X.**, Shaw, S., Ma, T., Zhou, C. 2013. Clustering of temporal event processes, *International Journal of Geographical Information Science*. 27(3): 484-510.

Gong, X.*, Pei, T., Sun, J., Luo, M. 2011. Review on research progress in trajectory clustering methods. *Progress in Geography*. 30(5): 522-534.

Sun, J., Pei, T., **Gong, X.**, Zhou, C. 2011. Review on research progress in Web spatio-temporal data mining. *Advances in Earth Science*. 26(4): 449-459.

Referred Conference Proceeding Papers

Zhang, C., Carmicheal, R., Yin, Z., **Gong, X.** 2020. ClusterLens: A Focus+Context approach to multi-resolution spatial clustering. *The ACM CHI Conference on Human Factors in Computing Systems (CHI 2020)*. Honolulu, HI, USA

Zhang, C., Yang, J., Zhan, F.B., **Gong, X.**, Brender, J.D., Langlois, P.H., Barlowe, S., Zhao, Y. 2016. A visual analytics approach to high-dimensional logistic regression modeling and its application to an environmental health study. *IEEE PacificVis 2016*.

Works in Progress

Submitted for publication

Huang, Y., **Gong, X.***, Liu, L., Luo, L., Leng, S., Lin Y. Associations between maternal exposure to industrial components in PM2.5 air pollutants and low birth weight in New Mexico, USA. (Submitted to *Environmental Science and Pollution Research* in March 2023, under review)

Jiang, M., Hu, C. J., Rowe, C., Kang, H., **Gong, X.**, Dagucon, C., Wang, J., Lin, Y., Sood, A., Guo, Y., Zhu, Y., Alexis, N., Gilliland, F., Belinsky, S., Yu, X. *, Leng, S.* Application of artificial intelligence in quantifying lung deposition dose of black carbon in a New Mexico population with exposure to ambient combustion particles. (Submitted to *Advanced Science* in February 2023, under review)

Bai, J., Ma, K., Xia, S., Deng, R., Leng, S., **Gong, X.**, Yu, H., Guo, Y. Pan-cancer mutational signature surveys correlated cancer racial disparities with geospatial environmental exposures and viral infections. (Submitted to *Genome Medicine* in Jan 2023, under review)

Gong, X. *, Liu, L., Huang, Y., Zou, B., Sun, Y., Luo, L., Lin, Y. A pruned feed-forward neural network (pruned-FNN) approach to measure air pollution exposure (Submitted to *Environmental Monitoring and Assessment* in November 2022, under review)

Gong, X., Wang, Y., Mao, L. L., Benedict, K., Lu, Y. Coping with distress from COVID-19: Exploring NBA fans' social media (Submitted to *Social Science Computer Review* in September 2022, under review)

Invited or Refereed Abstracts and/or Presentations at Professional Meetings

Peng, S., Park, Y.J., **Gong, X.** 2023. Executive transition in nonprofit organizations: trends and financial impact. Western Nonprofit Data Conference. Eugene, OR, 2023.

Gong, X., Zhan, F.B. 2022. Importance of Exposure Timing: Identifying Critical Windows of Maternal Air Pollution Exposures for Low Birth Weight in Offspring. The 29th International Conference on Geoinformatics. Beijing, China, 2022.

Gong, X., 2022. Clearing the Air for Healthy Births: Exploring Environment-Health Associations with Geospatial Data Science. Invited Presentation: University of South Florida, School of Geosciences, Tampa, FL, 2022.

Gong, X., Liu, L., Huang, Y. 2022. Influences of Airborne Metal Pollution on Adverse Birth Outcomes in New Mexico. Invited Presentation: University of New Mexico, Department of Pharmaceutical Sciences, Pharmaceutical Sciences & Toxicology Seminar Series, Albuquerque, NM, 2022.

Gong, X., Zhan, F.B. 2021. Industrial Air Pollution and Low Birth Weight A Case-Control Study Using Big Geographic Data. The 28th International Conference on Geoinformatics. Nanchang, Jiangxi, China. (Virtual)

Wang, Y., Mao, LL., **Gong, X.** 2021. Escape Motive of Mediated Sports Consumption and Social Media Engagement of NBA fans During COVID-19: A Coping Perspective. Sport Marketing Association (SMA) 2021 Annual Conference, Las Vegas, NV, USA.

Gong, X. 2019. "Geospatial Data Science: Synergies between Geospatial Principles and Big Data/Spatial-temporal Data". Invited Presentation: University of New Mexico, Department of Geography & Environmental Studies Colloquium Series, Albuquerque, NM, 2019.

Gong X. 2019. "How are Geography Departments Tweeting? A Case Study of Institutional Twitter Usage by U.S. Geography Departments". Invited Presentation: University of New Mexico, Geography Awareness Week - GIS Day Lightning Talk Series, Albuquerque, NM, 2019.

Gong, X. 2017. “Exploring Associations between Environmental Risk Factors and Low Birth Weight”. Invited Presentation: University of New Mexico, Department of Geography & Environmental Studies Colloquium Series, Albuquerque, NM, 2017.

Zhang, C., Yang, J., Zhan, F.B., **Gong, X.**, Brender, J.D., Langlois, P.H., Barlowe, S. 2013. Identifying Risk Factors for Birth Defects in High Dimensional Environmental Health Data. *IEEE VIS*. Atlanta, GA, USA.

Contributed (un-refereed) Abstracts and/or Oral Presentations at Professional Meetings

Gong, X., Wang, Y. 2022. Sports Fan Behavior Dynamics – A perspective from Social Media Big Data, in the Program of the 2022 Annual Meeting of the Association of American Geographers (AAG). New York, NY, USA. (Virtual)

Peng, S., Park, Y.J., **Gong, X.** 2022. Executive Transition and Strategic Change in Nonprofit Organizations, in the program of Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), Raleigh, NC, USA.

Girlando, C., Lin, Y., Lewis, J., **Gong, X.**, Lane, M., Bradfute, S., Luo, L., Upshaw-Bia, K. 2022. Integrating Big Data with Individual-Level Data to Improve Modeling and Prediction of Rocky Mountain Spotted Fever Dynamics in Native American Communities. *UNM College of Pharmacy Research Day*, April 28th, 2022.

Girlando, C., Lin, Y., Lewis, J., **Gong, X.**, Lane, M., Bradfute, S., Luo, L., Upshaw-Bia, K. 2022. Integrating Big Data with Individual-Level Data to Improve Modeling and Prediction of Rocky Mountain Spotted Fever Dynamics in Native American Communities. *2022 TickBase Annual Meeting*, Idaho, March 20-23, 2022.

Gong, X. 2021. Sleepless in America: Social Sensing with Nighttime Social Media Usage, in the Program of the 2021 University of New Mexico Team Research Symposium. March 2021. Albuquerque, NM, USA

Gong, X. 2021. How are Geography Departments Tweeting? – A Case Study of Institutional Twitter Usage by U.S. Geography Departments, in the Program of the 2021 Annual Meeting of the Association of American Geographers (AAG). Seattle, WA, USA. (Virtual)

Huang, Y., **Gong, X.**, Huang, J. 2021. Estimating Tea Plantation Area Based on Multi-source Satellite Data, in the Program of 2021 Annual Meeting of the Southwest Divisions of the Association of American Geographers (SWAAG). Oklahoma City, OK, USA.

Peng, S., Park, Y.J., **Gong, X.** 2020. Nonprofit Executive Director Transition: The Trend and Financial Impacts, in the program of Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), Indianapolis, Indiana, USA.

- Gong, X.** 2019. Investigating Risk of Adverse Birth Outcomes Associated with Industrial Air Pollution in Texas Using Big Geographic Data, in the Program of the Association of Pacific Coast Geographers (APCG) 2019 Annual Meeting. Flagstaff, AZ, USA.
- Gong, X.,** Zhan, F.B. 2019. Associations between Maternal Residential Proximity to Air Emissions from Industrial Facilities and Low Birth Weight in Texas, USA, in the Program of the 2019 Annual Meeting of the Association of American Geographers (AAG). Washington D.C., USA.
- Zhan, F.B., **Gong, X.** 2019. Geospatial Data Science and Health Research, in the Program of the 2019 Annual Meeting of the Association of American Geographers (AAG). Washington D.C., USA.
- Gong, X.** 2019. Industrial Air Pollution and Low Birth Weight, in the Program of the Second Biennial Population and Public Policy Conference. Albuquerque, NM, USA.
- Peng, S., Li, H., **Gong, X.** 2019. Dishonesty in the name of noble cause: Are public service motivation and prosocial motivation too much of a good thing? in the program of Public Management Research Conference (PMRC), Chapel Hill, NC, USA.
- Gong, X.,** Zhan, F.B. 2018. Maternal Residential Proximity to Air Emissions from Industrial Facilities and Low Birth Weight in Offspring in Texas: A Case-Control Study, in the Program of the 2018 Annual Meeting of the Association of American Geographers (AAG). New Orleans, LA, USA.
- Zhan, F.B., **Gong, X.,** Brender, J.D., Langlois, P.H. 2018. Data-Driven Environmental Health Research, in the Program of the 2018 Annual Meeting of the Association of American Geographers (AAG). New Orleans, LA, USA.
- Gong, X.,** Zhan, F.B., Lin, Y. 2017. Is Ionizing Radiation in the Vicinity of Nuclear Facilities Related to Low Birth Weight in Offspring, in the Program of the 2017 Annual Meeting of the Association of American Geographers (AAG). Boston, MA, USA.
- Gong, X.,** Zhan, F.B., Lin, Y. 2016. Exploring Associations between Air Emission from Industry Facilities and Low Birth Weight in Offspring Using Big Geographic Data, in the Program of the 2016 Annual Meeting of the Association of American Geographers (AAG). San Francisco, CA, USA.
- Gong, X.,** Zhan, F.B., Lin, Y. 2015. Exploring Associations between Residential Proximity to Nuclear facilities and Low Birth Weight in Texas, in the Program of 2015 Annual Meeting of the Southwest Divisions of the Association of American Geographers (SWAAG). San Antonio, TX, USA.

- Zhan, F.B., **Gong, X.**, Brender, J.D., Langlois, P.H. 2015. Development of an Environmental Health Indicator, in the Program of the Applied Geography Conference (AGC). San Antonio, TX, USA.
- Lin, Y., **Gong, X.** 2015. Measuring Access to Primary Care Physicians among American Indian Population in South Dakota – Integrating Spatial and Aspatial Factors, in the Program of the Applied Geography Conference (AGC). San Antonio, TX, USA.
- Lin, Y., Hungerford, H., **Gong, X.**, and Mousseau, R. 2015. Geographic Access to Healthcare among American Indian (AI) Population – A New Approach to Understand Cancer Disparity Burdens among AIs. Proceedings of 23rd International Conference on Geoinformatics. Wuhan, China.
- Gong, X.**, Zhan, F.B., Brender, J.D., Langlois, P.H. 2015. The Emission Weighted Proximity Model Performance for Estimating Long Term Air Pollution Exposure Risks In Large Geographic Areas, in the Program of the 2015 Annual Meeting of the Association of American Geographers (AAG). Chicago, IL, USA.
- Gong, X.**, Lu, Y., Lin, Y., Zhan, F.B. 2014. A 3D Ripley’s K method for Vector Autocorrelation analysis, in the Program of the Sixth Annual International Research Conference for Graduate Students. San Marcos, TX, USA.
- Lin, Y., **Gong, X.** 2014. A GIS-based Risk Assessment of Water Pollution Exposure to Hazardous Waste Sites, in the Program of 2014 Joint Meeting of the Southwest and Great Plains-Rocky Mountain Divisions of the Association of American Geographers (SWAAG-GPRM). Albuquerque, NM, USA.
- Gong, X.**, Lu, Y., Lin, Y., Zhan, F.B. 2014. K-Vec: A Global and Cross-scale Analysis Method of Vector Autocorrelation, in the Program of 2014 Joint Meeting of the Southwest and Great Plains-Rocky Mountain Divisions of the Association of American Geographers (SWAAG-GPRM). Albuquerque, NM, USA.
- Gong, X.**, Zhan, F.B., Chow, T.E. 2014. The Importance of “Space” in Strategies of Team Sports: An Agent-based Modeling Approach, in the Program of the 2014 Annual Meeting of the Association of American Geographers (AAG). Tampa, FL, USA.
- Gong, X.**, Zhan, F.B. 2013. Health Risk Assessment of TRI Toxic Air Pollutants in Texas from 1996 to 2008, in the Program of the 2013 Annual Meeting of the Association of American Geographers (AAG). Los Angeles, CA, USA.
- Zhan, F.B., Yang, J., **Gong, X.**, Brender, J.D., Langlois, P.H. 2013. Visual Exploration of Geospatial Data to Identify Risk Factors of Birth Defects: Fetching a Trace of Bad Air in the Sky, in the Program of the 2013 Annual Meeting of the Association of American Geographers (AAG). Los Angeles, CA, USA.

Gong, X., Pei, T., Zhan, F.B. 2012. Clustering Methods of Trajectory Data: A Review (poster), in the Program of the 2012 Annual Meeting of the Association of American Geographers (AAG). New York, NY, USA

Media Features

2023, “Exploring Social Dynamics with Social Media & GIScience”. (Published in Winter 2023 GES Alumni Newsletter)

2022, ‘UNM researchers complete FRESSH pilot program with wrap-up celebration’ (published by the University of New Mexico Newsroom): <http://news.unm.edu/news/unm-researchers-complete-fresh-pilot-program-with-wrap-up-celebration>

2022, ‘Introducing the FRESSH inaugural cohort’ (published by the University of New Mexico Newsroom): <http://news.unm.edu/news/introducing-the-fresh-inaugural-cohort>

Research

Research Funding

External Funding

New Mexico Integrative Science Program Incorporating Research in Environmental Sciences (NM-INSPIRES)

NIH/National Institute of Environmental Health Sciences (NIEHS) P30 Center

1P30ES032755 (PI: Blossom)

09/01/2022-04/01/2026

Direct Cost: \$3,399,900

Role: Co-Investigator (Co-I)

Integrating Big Data with Individual-Level Data to Improve Modeling and Prediction of Rocky Mountain Spotted Fever Dynamics in Native American Communities, supplement of RII Track-2 FEC: Leveraging Big Data to Improve Prediction of Tick-Borne Disease Patterns and Dynamics

National Science Foundation

OIA-2019609-003 Supplements (PI: Lin)

01/01/2022-08/30/2024

Direct cost: \$259,163; Indirect cost: \$128,695

Role: Co-I

Influences of Airborne Metal Pollution on Adverse Birth Outcomes in New Mexico

National Institutes of Health (NIH) National Institute of General Medical Sciences (NIGMS)

Center for Metals in Biology and Medicine Pilot Project (PI: Gong)

11/01/2020-05/31/2022

Direct Cost: \$20,000

Role: Principal Investigator (PI)

Evaluating psychological well-being of the public during the Novel Coronavirus outbreak using Social Media Big Data

China Data Institute

Global Research on COVID-19 Project (PI: Gong)

03/15/2020-12/31/2020

Role: PI

Air Pollution-Exposure-Health Effect Indicators: Mining Massive Geographically-Referenced Environmental Health Data to Identify Risk Factors for Birth Defects

US Environmental Protection Agency (USEPA)

USEPA Science to Achieve Results (STAR) Program (PI: Zhan)

2011-2014

Total Cost: \$499,987

Role: Doctoral student personnel

Internal Funding

Do We Care Enough About Child Maltreatment? - Understanding Public Perspectives on Child Maltreatment in the United States using Social Media Big Data

UNM Research Allocations Committee Fund (**PI: Gong**) 12/01/2022-05/31/2024

Direct Cost: \$9,843

Role: PI

Mitigating Risks and Supporting Protective Factors to Prevent Child Maltreatment

Grand Challenge Level 1 Concept Team (PI: Girardet, Nozadi) 07/01/2022-06/30/2023

Direct Cost: \$5,000

Role: Team Member

Housing Justice Grand Challenge

Grand Challenge Level 1 Concept Team (PI: Pride, Lopez, Ehrenfeucht) 07/01/2022-06/30/2023

Direct Cost: \$5,000

Role: Team Member

Understanding Public Perspectives on Fracking in the United States using Social Media Big Data

WeR1: Investing in Faculty Success Program SuRF 2022 (**PI: Gong**) 06/01/2022-12/31/2022

Direct Cost: \$5,000

Role: PI

Sleep issues across the US: A spatial-temporal perspective

UNM FRESSH Pilot Program (**PI: Gong**) 02/14/2022-12/31/2022

Direct Cost: \$3,000

Role: PI

Investigating Nonprofit Collaborations for Disaster Response Using Social Media Big Data: The Case of the COVID-19 Pandemic in U.S

WeR1: Investing in Faculty Success Faculty Scholarship Time (FaST) (**PI: Gong**)

01/17/2022-05/13/2022

Direct Cost: \$5252.51

Role: PI

Geographically targeted outreach of cancer support and treatment resources for cancer disparity reduction in New Mexico

UNM Comprehensive Cancer Center Support Pilot (PI: Lin) 08/01/2021-07/31/2022

Direct Cost: \$40,000

Role: Co-I

Redlines and Health Disparity: The Relationship between Historical Redlining and Present-day Health Care Access across the United States

WeR1: Investing in Faculty Success Program (**PI: Gong**) 06/21/2021-12/31/2021
Direct Cost: \$5,000
Role: PI

Sleepless in America: Social Sensing with Nighttime Social Media Usage

2021 Faculty Team Research Concept Competition Award (**PI: Gong**) 05/20/2021-06/30/2023
Direct Cost: \$5,000
Role: PI

Industrial Air Pollution and Adverse Birth Outcomes in New Mexico – An Artificial Intelligence Approach Using Big Health and Environmental Data

UNM Research Allocations Committee Fund (**PI: Gong**) 12/01/2019-05/31/2022
Direct Cost: \$9,996
Role: PI

Exploring Associations between Environmental Risk Factors and Low Birth Weight Using Big Geographic Data

Texas State University Doctoral Research Support Fellowship Award (**PI: Gong**) 01/01/2014-12/31/2014
Direct Cost: \$2,850
Role: PI

Online Real Estate Sales Information System based on WebGIS

Student Scientific Research Project of Wuhan University (**PI: Gong**) 06/01/2007-07/31/2007
Direct Cost: ¥ 1,000
Role: PI

Provost's Professional Conference Support Program, University of New Mexico. \$2000. 2020.

Travel Funding:

- University of New Mexico, Denver, CO. March 23-27, 2023.
- University of New Mexico, New York, NY (Virtual). February 25-March 1, 2022.
- University of New Mexico, Seattle, WA (Virtual). April 7-11, 2021.
- University of New Mexico, Flagstaff, AZ. Oct 16-19, 2019.
- University of New Mexico, Washington, D.C. April 2-April 7, 2019.
- University of New Mexico, New Orleans, LA. April 10-April 14, 2018.
- University of New Mexico, Boston, MA. April 4-April 8, 2017.
- The Rising S.T.A.R. Grant, San Francisco, CA. March 29-April 2, 2016.
- Texas State University, San Francisco, CA. March 29-April 2, 2016.
- Texas State University, San Antonio, TX. Nov. 4-7, 2015.
- The Rising S.T.A.R. Grant, Chicago, IL. April 21-25, 2015.
- Texas State University, Chicago, IL. April 21-25, 2015.

Texas State University, Albuquerque, NM. Oct. 23-25, 2014.
Texas State University, Tampa, FL. April 8-12, 2014.
Texas State University, Los Angeles, CA. April 9-13, 2013.
Texas State University, New York City, NY. February 24-28, 2012.

Teaching

Doctoral Advisement

PhD students (as major advisor)

Yujian Lu (Department of Geography & Environmental Studies, passed the doctoral comprehensive exam, expected to receive degree in Spring 2024)

Yanhong Huang (Department of Geography & Environmental Studies, in progress, expected to receive degree in Spring 2025)

Master Advisement

Master's students (as major advisor)

Luke Isak Andrews (Department of Geography & Environmental Studies, in progress, expected to receive degree in Fall 2023)

David Jacobs (Department of Geography & Environmental Studies, in progress, expected to receive degree in Fall 2023)

Master's students (as committee member)

Alexandra Jane Vivier (Department of Geography & Environmental Studies, in progress, expected to receive degree in Spring 2023)

Jesse Sprague (Department of Geography & Environmental Studies, in progress, expected to receive degree in Spring 2023)

Stephanie Olivas (Department of Geography & Environmental Studies, in progress, expected to receive degree in Spring 2023)

Al-Ekram Elahee Hridoy (Department of Geography & Environmental Studies, in progress, expected to receive degree in Spring 2024)

Zhuoming Liu (Department of Geography & Environmental Studies, graduated 2021). Thesis: "Individual Exposure potential Assessment for Livestock Based on Spatial-Temporal Analysis of GPS Data & Behavior Patterns Classification in Cove Wash Watershed, Arizona" (with Distinction)

Jillian Joan Rutherford (Department of Geography & Environmental Studies, graduated 2021). Thesis: "In Pursuit of Comparability: Evaluating Influence and Interaction among Components of the Home Range Estimation Process in Chimpanzee GPS Datasets" (with Distinction)

Ian Hill (Department of Geography & Environmental Studies, graduated 2019). Thesis: "A hybrid GIS/in situ analysis of AED coverage on the UNM central campus."

Courtney Brock (Department of Geography & Environmental Studies, graduated 2018). Thesis: "Urban animals: GIS analysis of stray canines and felines in Albuquerque, New Mexico."

Alejandra Gaytan; B.S. in Civil and Environmental Engineering; 2023 Spring-present; "Environmental justice mapping with regard to access to clean water in different communities" (in progress, expected to receive degree in Spring 2023)

Classroom Teaching

Teaching at the University of New Mexico, 2016-present (All as Course Instructor)

- GEOG 580L: Spatial Statistics, University of New Mexico (Course Instructor)
- GEOG 428/528: Advanced Programming for GIS, University of New Mexico (Course Instructor)
- GEOG 427/527: Introductory Programming for GIS, University of New Mexico (Course Instructor)
- GEOG 486L/586L: Applications of GIS, University of New Mexico (Course Instructor)
- GEOG 581L: Introduction to Geographic Information System for Graduate Students, University of New Mexico (Course Instructor)
- GEOG 381L: Introduction to Geographic Information System, University of New Mexico (Course Instructor)

Teaching at the Texas State University, 2011-2015

- GEO 5419: Geographic Information Systems II (Graduate level), Texas State University (Teaching Assistant, Lab Instructor)
- GEO 5418/7417: Geographic Information Systems I (Graduate level), Texas State University (Teaching Assistant, Lab Instructor)
- GEO 2426: Fundamentals of Geographic Information Systems (GIS), Texas State University (Teaching Assistant, Lab Instructor)

Teaching at the Wuhan University, 2007

- Professional English (Undergraduate Course), Wuhan University (Teaching Assistant)

Professional Development

Fostering Research Expansion in Social Sciences & Humanities (FRESSH), University of New Mexico
02/14/2022-12/31/2022

Evidence-Based Practices for Teaching Online (EBPTO), University of New Mexico
05/18/2020-07/01/2020

GFDA Early Career Workshop, American Association of Geographers, in Washington, D.C.
06/23/2019-06/29/2019

Service

Professional Leadership

- 2021-present, Board of Directors members (elected), New Mexico Geographic Information Council (NMGIC)
- 2020-present, Urban Computing and Spatial Planning Committee member, the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)
- 2021-2022, Annual Conference Committee member, the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)
- 2020-2021, Election Committee chair, the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)
- 2019-2021, Board of Directors members (elected), the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)

Departmental Service

- 08/2021-present, Assessment Coordinator, Department of Geography & Environmental Studies, University of New Mexico
- 03/2022-04/2022, Search Committee member for the IT Tech Support, Department of Geography & Environmental Studies, University of New Mexico
- 08/2017-08/2019, 08/2021-08/2022, Outreach & Communication Coordinator Department of Geography & Environmental Studies, University of New Mexico
- 08/2017-08/2019, 08/2021-08/2022, Curriculum Committee member, Department of Geography & Environmental Studies, University of New Mexico
- 08/2020-present, Committee of the Whole, Department of Geography & Environmental Studies, University of New Mexico
- 08/2019-present, Peer teaching reviewers, Department of Geography & Environmental Studies, University of New Mexico
- 08/2020-08/2021, T&P Committee (consulting role), Department of Geography & Environmental Studies, University of New Mexico
- 08/2020-08/2021, Space committee, Department of Geography & Environmental Studies, University of New Mexico
- 08/2017-12/2018, Outreach coordinator, Department of Geography & Environmental Studies, University of New Mexico
- 08/2016-08/2017, Website Coordinator, Department of Geography & Environmental Studies, University of New Mexico

Campus Service

- 2022 Judge for the GIS Day Student Poster Competition, Geography Awareness Week hosted by Department of Geography and Environmental Studies, University of New Mexico
- 2021 Faculty host of the tabling event at UNM Geography Awareness Week 2021
- 2019 Evaluator for 2019 UNM McNair Scholars Research Conference hosted by University of New Mexico
- 2017 Judge for the student poster competition, Geography Awareness Week hosted by Department of Geography and Environmental Studies, University of New Mexico
- 2014 Volunteer, Cat Crew, Department of Housing & Residential Life, Texas State University
- 2012-2014 Mentoring Student Advisory Council Representative, Student Mentoring Program of Texas State University

Community Service

- 2009 Volunteer and Interpreter Assistant, ESRI China User Conference 2009, Beijing, China

International Service

- 2021-2022 Guest editor for Special Issue "Advances to GIS for Sensing of Earth and Human Interaction" in *Remote Sensing*

Administrative work with professional societies, elect offices held

- 2022 Session Organizer, "Symposium on Human Dynamics Research: Mining Human Dynamics with Big Data" at Annual Meeting of the Association of American Geographers (AAG)
- 2021 Session Organizer, "Symposium on Human Dynamics Research: Mining Human Dynamics with Big Data & Spatio-Temporal Analysis" at Annual Meeting of the Association of American Geographers (AAG)

Affiliations

American Association of Geographers, 2011-present

The International Association of Chinese Professionals in Geographic Information Sciences (CPGIS), 2019-present

Spatial Decision Support Consortium, 2021-present

Association of Pacific Coast Geographers, 2019-Present

Southwest Division, American Association of Geographers, 2011-Present

Xi Gong: C.V.

New Mexico Geographic Information Council, 2017-present