

# Curriculum Vitae

**Neng Wan**

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## Education

2007-2011 Ph.D. Geographic Information Science, Texas State University-San Marcos  
2003-2006 M.S. Cartography and GIS, Wuhan University, China  
1999-2003 B.S. Geodesy, Wuhan University, China

## Postdoctoral Training

2011-2013 Post-doctoral Associate, College of Public Health, University of Nebraska Medical Center

## Positions

2019- Associate Professor (with tenure), Department of Geography, University of Utah  
2018- Director, Master of Science in Geographic Information Science (MSGIS) Program, Department of Geography, University of Utah  
2015- Affiliate, Consortium for Families and Health Research (C-FAHR), University of Utah  
2014- Affiliate, Global Change & Sustainability Center (GCSC), University of Utah  
2014- Affiliate, Center on Aging, University of Utah  
2014- Director, The Utah Geo-Health Lab, Department of Geography, University of Utah  
2014-2019 Assistant Professor, Department of Geography, University of Utah  
2011-2013 Post-doctoral Associate, College of Public Health, University of Nebraska Medical Center  
2007-2011 Teaching/Research Assistant, Department of Geography, Texas State University-San Marcos  
2004-2006 Research Assistant, Virtual Reality Lab, Wuhan University

## Research Interests

Environmental Health, Social Determinants of Health, Health Behaviors, Access to Healthcare

## Publication

*Peer-reviewed Journal Articles* (Note: \* denotes a student or postdoc author)

### Accepted/In Press/Published

57. Hohl, A., Choi, M., Medina, R., **Wan, N.**, and M. Wen. 2023. COVID-19: adverse population sentiment and place-based associations with socioeconomic and demographic factors. *Spatial Information Research*: 1-12
56. \*Han, J., **Wan, N.**, McCrum, M., and Brewer, S. 2023. Spatial Access to Emergency General Surgery (EGS) Services and EGS Bypass Behaviors in California. *Annals of GIS* 29(1): 75-85
55. McCrum, M., Allen, CM., Han, J., Iantorno, SE., Presson, AP., **Wan, N.** 2023. Greater spatial access to care is associated with lower mortality for emergency general surgery. *Journal of Trauma and Acute Care Surgery* 94 (2): 264-272
54. Pearson, J., **Wan, N.**, and others. 2023. Geospatial analysis of patients' social determinants of health for health systems science and disparity research. *International Anesthesiology Clinics* 61(1):49-62
53. McCrum, M., **Wan, N.**, Han, J., Lizotte, S., and J. Horns. 2022. Disparities in Spatial Access to Emergency Surgical Services in the US. *JAMA Health Forum* 3(10).
52. \*Steed, R., Bakian, A., Smith, K.R., **Wan, N.**, Brewer, S., and J. VanDerslice. 2022. Evidence of Transgenerational Effects on Autism Spectrum Disorder Using Multigenerational Space-Time Cluster Detection. *International Journal of Health Geographics* 21(1):13
51. \*Sharareh, N., Wallace, A., Brintz, B., **Wan, N.**, Guo, J.W., and Wong, B. 2022. Associated factors with patient-reported unmet food needs among emergency department adult patients – a social need perspective. *Preventive Medicine Reports* 29, 101974
50. Hohl, A., Choi, M., Yellow Horse, A.J., Medina, R., **Wan, N.**, and M. Wen. 2022. Spatial Distribution of Hateful Tweets Against Asians and Asian Americans During the COVID-19 Pandemic, November 2019 to May 2020. *American Journal of Public Health* 112(4): 646–649
49. **Wan, N.**, McCrum, M., Han, J., Lizotte, S., Su, D., Wen, M., and S. Zeng. 2022. Measuring Spatial Access to Emergency General Surgery Services: Does the Method Matter?. *Health Services and Outcomes Research Methodology* 22 (1): 79-95
48. \*Karl, A., **Wan, N.**, Cova, T., Wang, H., and Lizotte, S. 2022. Using GIS to Understand the Influence of Hurricanes on Spatial Access to Primary Care: A Case study of Hurricane Harvey in Harris County, TX. *Risk Analysis* 42 (4): 896-911
47. \*Xu, S., Zou, B., Xiong, Y., **Wan, N.**, Feng, H., Hu, C., and L. Yan. 2021. High spatiotemporal resolution mapping of PM2. 5 concentrations under a pollution scene assumption. *Journal of Cleaner Production* 326: 129409
46. Nahum-Shani, I., Potter, L.N., Lam, C.Y., Yap, J., Moreno, A., Stoffel, R., Wu, Z., **Wan, N.**, Dempsey, W., Kumar, S., Ertin, E., Murphy, S.A., Rehg, J.M., & Wetter,

- D.W. 2021. The Mobile Assistance for Regulating Smoking (MARS) Micro-Randomized Trial Design Protocol. *Contemporary Clinical Trials* 110: 106513
45. \*Xiao, W., Wei, D., and **N. Wan**. 2021. Modeling Job Accessibility Using Online Map Data: An Extended Two-step Floating Catchment Area Method with Multiple Travel Modes. *Journal of Transport Geography* 93, 103065
  44. \*McCullough, M., **Wan, N.**, Pezzolesi, M., Collins, T., Grineski, S.E., Wei, D., Lazaro-Guevara, J., Frodsham, S., VanDerslice, J., Holmen, J., Srinivas, T., and S, Clements. 2021. Type 1 Diabetes Incidence among Youth in Utah: A Geographical Analysis. *Social Science & Medicine* 278, 113952
  43. \*Kwon, S., **Wan, N.**, Burns, R., Brusseau, T., Kim, Y., Kumar, S., Ertin, E., Wetter, W.D., Lam, C. Y., Wen, M., and W. Byun. 2021. The validity of MotionSense HRV in estimating sedentary behavior and physical activity under free-living and simulated activity settings. *Sensors* 21(4), 1411
  42. McCrum, M., **Wan, N.**, Lizotte, S., Han, J., Nirula, R., and T. Varghese. 2021. Use of the Spatial Access Ratio to Measure Geospatial Access to Emergency General Surgery Services in California. *Journal of Trauma and Acute Care Surgery* 90(5):853-860
  41. \*Anderson, J., Su, D., Dylan, S., Wen, M., **Wan, N.**, and T. Michaud. 2021. Racial Disparities in Diabetes Management Outcomes: Evidence from a Remote Patient Monitoring Program for Type 2 Diabetic Patients. *Telemedicine and E-health* 27(1): 55-61
  40. Wen, M., Wang, W., **Wan, N.**, and D. Su. 2020. Family Income and Student Educational and Cognitive Outcomes in China: Exploring the Material and Psychosocial Mechanisms. *Social Sciences* 9 (12): 225
  39. \*Sharareh, N., Hess, R., **Wan, N.**, Zick, C., and A. Wallace. 2020. Incorporation of Information Seeking Behavior into Food Insecurity Research. *American Journal of Preventive Medicine* 58(6): 879-887
  38. Zou, B., Li, S., Zhong, Z., Zhan, F.B., Yang, Z., and **N. Wan**. 2020. Healthier routes planning: a new method and online implementation for minimizing air pollution exposure risk. *Computers, Environment and Urban Systems* 80: 101456
  37. \*Li, D., Cova, T., Dennison, P., **Wan, N.**, Nguyen, Q., and L, Siebeneck. 2019. Why do we need a national address point database to improve wildfire public safety in the US? *International Journal of Disaster Risk Reduction*, 39: 101237
  36. Lin, Y., **Wan, N.**, Sheets, R., Gong, X., A, Davies. 2018. A Multi-modal Relative Spatial Access Assessment Approach to Measure Spatial Accessibility to Primary Care Providers. *International Journal of Health Geographics* 17:33
  35. **Wan, N.**, Siahpush, M., Shaikh, R.A., McCarthy, M., Ramos, A., and Correa, A. 2018. The association of point-of-sale e-cigarette advertising with socio-demographic characteristics of neighborhoods. *Journal of Primary Prevention* 39(3): 191-203
  34. Wang, H., Gregg, A., Qiu, F., Kim, J., Chen, B., Su, D., Michaud, T., **Wan, N.**, Chen, L. 2018. Breast cancer screening for patients of rural Accountable Care Organization

- clinics: A multi-level analysis of barriers and facilitators. *Journal of Community Health* 43(2): 248-258
33. **Wan, N.**, M, Wen., J, Fan., F, Tavake-Pasi., S, McCormick., K, Elliott., E, Nicolosi. 2017. Physical Activity Barriers and Facilitators among U.S. Pacific Islanders and the Feasibility of Using Mobile Technologies for Intervention: A Focus Group Study with Tongan Americans. *Journal of Physical Activity and Health* 15(4): 287-294
  32. **Wan, N.**, Siahpush, M., Shaikh, RA., McCarthy, M., Ramos, A., and Correa, A. 2017. Point-of-sale E-cigarette Advertising among Tobacco Stores. *Journal of Community Health* 42(6):1179-1186
  31. **Wan, N** & G. Lin. 2017. Addressing Location Uncertainties in GPS-based Activity Monitoring: a Methodological Framework. *Transactions in GIS*. 21(4): 764-781
  30. Fan, J., Wen, M., and **Wan, N**. 2017. Built Environment and Active Commuting: Rural-Urban Differences in the U.S. *SSM – Population Health* 3: 435-441
  29. Wang, H., Qiu, F., Gregg, A., Chen, B., Kim, J., Young, L., **Wan, N.**, and Chen, L. 2017. Barriers and Facilitators of Colorectal Cancer Screening for Patients of Rural Accountable Care Organizations Clinics: A Multi-Level Analysis. *Journal of Rural Health* 34(2):202-212
  28. Siahpush, M., Shaikh, R. A., **Wan, N.**, et al. 2017. Neighborhood exposure to point-of-sale price promotions for cigarette is associated with financial stress among smokers: Results from a population-based study. *Tobacco Control* 26: 703-708
  27. Wen, M., Fan, J., Kowaleski-Jones, L., and **N, Wan**. 2017. Rural-urban Disparities in Overweight and Obesity among Working Age Adults in the United States: Patterns and Mechanisms. *American Journal of Health Promotion* 32(2): 400-408
  26. Lin, Y., **Wan, N.**, FB Zhan. 2017. Colorectal cancer disparities among racial/ethnic minorities in Texas. *Annals of GIS* 23(2): 93-101.
  25. **Wan, N** & G. Lin. 2016. Classifying Human Activity Patterns from Smartphone Collected GPS data: A Fuzzy Classification and Aggregation Approach. *Transactions in GIS*. 20(6): 869-886
  24. Zhai, L., Zou, B., Fang, X., Luo, Y., **Wan, N.**, S, Li. 2016. Land Use Regression Modeling of PM2.5 Concentrations at Optimized Spatial Scales. *Atmosphere* 8 (1), 1
  23. Zou, B., Zheng, Z., Wan, N., Qiu, Y., and J.G. Wilson. 2016. An optimized spatial proximity model for fine particulate matter air pollution exposure assessment in areas of sparse monitoring. *International Journal of Geographical Information Science* 30 (4), 727-747
  22. **Wan, N** & G. Lin. 2016. Parkinson's Disease and Pesticides Exposure: New Findings from a Comprehensive Study in Nebraska, USA. *Journal of Rural Health* 32(3): 303-313.
  21. **Wan, N**. 2015. Pesticides exposure modeling based on GIS and remote sensing land use data. *Applied Geography* 56: 99-106.
  20. Siahpush, M., Shaikh, R. A., Hyland, A., Smith, D., Sikora Kessler, A., Meza, J., **Wan, N** & Wakefield, M. 2015. Point-of-sale cigarette marketing, urge to buy

- cigarettes, and unplanned purchases of cigarettes: Results from a population-based survey. *Nicotine and Tobacco Research* 16: 302
19. Siahpush, M., Shaikh, R.A., Cummings, K.M., Hyland, A., Dodd, M., Carlson, L., Kessler, A. S., Meza, J., **Wan, N.**, Wakefield, M. 2015. The association of point-of-sale cigarette marketing with cravings to smoke: results from a cross-sectional population-based study. *Tobacco Control*: doi:10.1136/tobaccocontrol-2015-052253
  18. Zou, B., Luo, Y., **Wan, N.**, Zheng, Z., Sternberg, T., and Liao, Y. 2015. Performance comparison of LUR and OK in PM2.5 concentration mapping: a multidimensional perspective. *Scientific Reports* 5: 8698
  17. Zou, B., Wang, M., **Wan, N.**, J, Wilson., X, Fang., and Y, Tang. 2015. Spatial modeling of PM2. 5 concentrations with a multifactoral radial basis function neural network. *Environmental Science and Pollution Research* 22 (14), 10395-10404
  16. Zou, B., Peng, F., **Wan, N.**, Mamady, K., and Wilson, J. 2014. Spatial cluster detection of air pollution exposure inequality in the United States. *PLOS ONE* 9 (3)
  15. Zou, B., Peng, F., **Wan, N.**, Wilson, J. 2014. Sulfur dioxide exposure and environmental justice: a multi-scale and source-specific perspective. *Atmospheric Pollution Research* 5: 491-499.
  14. Dong, M., Zou, B., Pu, Qian., **Wan, N.**, Yang, L., Luo, Y. 2014. Spatial pattern evolution and causal analysis of county level economy in Chang-Zhu-Tan urban agglomeration, China. *Chinese Geographical Science* 24(5): 620-630.
  13. **Wan, N.** & G Lin. 2013. Life-space characterization from cellular telephone collected GPS data. *Computers, Environment and Urban Systems* 39: 63-70.
  12. **Wan, N.**, Qu, W., Whittington, J., Witbrodt, B., Henderson, M., Goulding, E., Schenk, A., Bonasera, S., and Lin, G. 2013. Assessing smart phones for generating life space indicators. *Environment and Planning B: Planning and Design* 40(2): 350-361.
  11. **Wan, N.**, Zhan, FB., Zou, B., and Wilson, JG. 2013. Spatial access to healthcare services and disparities in colorectal cancer stage at diagnosis in Texas. *The Professional Geographer* 65(3): 527-541.
  10. **Wan, N.**, Zou, B., Sternberg, T. 2012. A three-step floating catchment area method for analyzing spatial access to health services. *International Journal of Geographic Information Science* 26(6): 1073-1089.
  9. **Wan, N.**, Zhan, FB., Lu, Y., and Tiefenbacher, J. 2012. Access to health care and disparities in colorectal cancer survival in Texas. *Health & Place* 18(2): 321-329.
  8. **Wan, N.**, Zhan, FB., Zou, B., and Chow, T. 2012. A relative spatial access assessment approach for analyzing potential spatial access to colorectal cancer services in Texas. *Applied Geography* 32(2): 291-299.
  7. **Wan, N.**, Zhan, FB., and Cai, Z. 2011. Socioeconomic disparities in prostate cancer mortality and the impact of geographic scale. *Southern Medical Journal* 104(8): 553-559.
  6. Ma, H., Wu, X., Zou, B., Meng, X., and **Wan, N.** 2012. An algorithm for daytime radiation fog detection based on MODIS/TERRA data over land. *Journal of Applied Remote Sensing* 6(1): 063589, doi: 10.1117/1.JRS.6.063589.
  5. Shen, J., Yang, M., Zou, B., **Wan, N.**, and Liao, Y. 2012. Outlier detection of air temperature series data using probabilistic finite state automata based algorithm. *Complexity* 17(5): 48-57.

4. **Wan, N.**, Zhan, FB., and Cai, Z. 2011. A spatially weighted degree model for network vulnerability analysis. *Geo-spatial Information and Science* 14(4): 274-281.
3. Zhu, Q., Wu, B., and **Wan, N.** 2007. A filtering strategy for interest point detecting to improve repeatability and information content. *Photogrammetric Engineering & Remote Sensing* 73(5): 547-53.
2. Zhu, Q., Wu, B., and **Wan, N.** 2007. A sub-pixel location method for interest points by means of the Harris interest strength. *The Photogrammetric Record* 22(120): 321-35.
1. Zhu, Q., Wu, B., **Wan, N.**, Xu, Z., and Tian, Y. 2006. An interest point detection method to stereo images with good repeatability and information content. In Chinese, *Acta Electronica Sinica* 34(2): 205-09.

**Conference Proceedings** (Note: \* denotes a student or postdoc author)

1. \*Chatterjee, S., Moreno, A., \*Lizotte, S. L., Akther, S., Ertin, E., Fagundes, C. P., Lam, C., Rehg, J. M., **Wan, N.**, Wetter, D., Kumar, S. (2020) SmokingOpp: Detecting the Smoking ‘Opportunity’ Context Using Mobile Sensors. in Proc. of ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT).

## Grants

### External

#### *Funded*

- 2023-2030 *Using momentary measures to understand physical activity adoption and maintenance among Pacific Islanders in the United States*. PI: **Neng Wan**. NIH/NCI (R37). (USD \$4.6M)
- 2023-2027 *Land-use-based economic livelihoods and Melanoma: spatial access, lived experiences, and clinical outcomes*. PI: Elliot Asare. Robert Wood Johnson Foundation, Harold Amos Medical Faculty Development Program (AMFDP) Fund (\$500,000). My role: Co-Mentor
- 2021-2025 *Using linked data to understand disparities on family planning*. PI: Jessica Sanders. Agency for Healthcare Research and Quality (AHRQ) (K01). My role: Co-Mentor
- 2019-2024 *Neighborhood and community drivers of racial inequities in severe maternal morbidity*. PI: Michelle Debbink. NIH/RSDP (K01). My role: Co-Mentor
- 2018-2023 *Affective science and smoking cessation: real time real world assessment*. PI: David Wetter. Co-I: **Neng Wan** (and others). NIH/NCI (R01). (USD \$3M)
- 2018-2022 *Novel use of mHealth data to identify states of vulnerability and receptivity to JITAIs*. PI: Nahum-Shani/Wetter. Co-I: **Neng Wan** (and others). NIH/NCI (U01). (USD \$2.6M)
- 2018-2022 *Socioeconomic status, stress, and smoking cessation*. PI: Cho Lam. Co-I: **Neng Wan** (and others). NIH/NCI (R01). (USD \$3.1M)
- 2018-2022 *Eliminating tobacco-related disparities among African American smokers*. PI: Cho Lam. Co-I: **Neng Wan** (and others). NIH/NCI (R01). (USD \$3.7M)

- 2018-2021 *A Geographic Information System to evaluate disparities in access to emergency surgery services.* PI: Marta McCrum. Co-I: **Neng Wan** (and others). NIH/NIMHD (R21). (USD \$419,375)
- 2018-2020 *Piloting a mobile-health system for understanding physical activity behaviors of a high cancer-risk population group.* 2018-2020. PI: **Neng Wan**. American Cancer Society (via Huntsman Cancer Institute) (USD \$30,000)
- 2018-2020 *Evaluating disparities in geographic access to emergency general surgery in California.* PI: Marta McCrum. Co-I: **Neng Wan**. American Association for the Surgery of Trauma (USD \$50,000)
- 2018-2020 *Using mobile technology to understand the impact of socioeconomic and neighborhood factors on smoking cessation.* National Cancer Institute Ruth L. PI: Chris Cambron. National Research Service Award (NRSA) Individual Postdoctoral Fellowship (F32). My role: Co-Mentor
- 2013-2016 *Understanding life-space characteristics based on smart-phone collected data.* PI: **Neng Wan**. NIH/NIA (R03). (USD \$148, 480)
- 2013-2015 *Spatial-temporal modeling and validation of urban air pollution variations under multi-type geographical factors.* PI: Bin Zou. Co-I: **Neng Wan** (and others). Natural Science Foundation of China (NSFC). (Chinese RMB: ¥300,000 (USD \$47, 000))

### **Internal**

- 2023-2024 *Inhaling Danger: The impact of air pollution on perioperative outcomes.* PI: John Pearson. Co-PI: **Neng Wan** (with others). Wilkes Center for Climate Seed Grant, University of Utah (\$2,5000)
- 2023-2024 *Use of Modularity Optimization to Define and Evaluate Regional Networks for Emergency General Surgery Care.* PI: Marta McCrum. Co-PI: **Neng Wan** (with others). One Utah Data Science Hub Seed Grant, University of Utah (\$50,000)
- 2022-2023 *Geospatial Analysis of National Health Registries to Improve Perioperative Equity.* PI: John Pearson. Co-PI: **Neng Wan** (with others). VPR Seed Grant, University of Utah (\$50,000)
- 2020-2021 *A Geospatial Big Data Platform for Understanding Population Sentiment Toward the Spread of COVID-19 in the United States.* PI: Alexander Hohl. Co-I: **Neng Wan** (with others) VPR Seed Grant, University of Utah (\$35,000)
- 2015-2018 *Interactions between life-space and quality of life in spousal dyads coping with chronic conditions.* PI: **Neng Wan** (with Co-PI Linda Edelman) The Consortium for Families and Health Research Pilot Grant, University of Utah. (USD \$16,000)
- 2015-2016 *Understanding and promoting physical activities using mobile technologies..* PI: **Neng Wan**. College of Social and Behavioral Sciences, University of Utah, Research Incentive Program. (USD \$5,800)

- 2015-2016 *A Pilot Study to Design an Intervention on Promoting Physical Activity among Tongans in Salt Lake City, Utah*. PI: **Neng Wan** (with Co-PI Ming Wen) The Interdisciplinary Pilot Program, College of Social and Behavior Sciences, University of Utah. (USD \$9,700)
- 2014 *Determinants of Breast Cancer Survival in Nebraska, 1997-2010*. Principal Investigator: Soumitra Bhuyan. Co-I: **Neng Wan**. The Nebraska Joint Public Health Data Center. (USD \$3,700)

## **Presentations**

**Wan, N.** 2023. Disparities in Emergency General Surgery Services: accessibility, utilization, and outcomes. Annual Meeting of the American Association of Geographers, Denver, CO, March 25<sup>th</sup>, 2023.

**Wan, N.**, and Debbink, M. 2021. GIS and Public Health: A Collaborative Research. Clinical Research & Methods (CRAM) Seminar. Center for Excellence in Women's Health. University of Utah, March 17<sup>th</sup>, 2021

**Wan, N.** 2019. (Invited Talk) The Applications of GIScience in Public Health. Utah Valley University, October 22<sup>nd</sup>, 2019

**Wan, N.**, et al., 2019. Applying Mobile Technologies in Public Health Research: Challenges and Opportunities for Geographers. Annual Meeting of the American Association of Geographers, Washington DC, April 4, 2019.

**Wan, N.** 2018. Understanding the Geography of Health: the Role of GIScience. Salt Lake Community College, November 15<sup>th</sup> 2018

**Wan, N.** 2018. GIS and Public Health. College of Health Colloquium. University of Utah November 16<sup>th</sup>, 2018

Fan, J., Wen, M., and **Wan, N.** The role of multilevel economic resources in multiple developmental outcomes among early adolescents in China. The 10<sup>th</sup> Biennial Meeting of Society for the Study of Human Development, Providence, RI, October 7<sup>th</sup>, 2017

**Wan, N.** 2017. (Invited Talk) Health, Healthcare, and Environment within the Geographical Framework. China University of Geosciences, Wuhan, China, April 15, 2017

**Wan, N.** 2017. (Invited Talk) Spatial Uncertainties in Mobile Health Studies. Wuhan University, Wuhan, China, April 17, 2017

**Wan, N.** 2017. Health, Healthcare, and Environment within the Geographical Framework. Wuhan University, Wuhan, China, April 15, 2017

Davis, A., **Wan, N.**, VanDerslice, J., Power, M. Childhood Undernutrition within the Dry Zone of Myanmar: Does Geographic Location Matter? Annual Meeting of the Association of American Geographers, Boston, MA, April 14, 2017.



- Wan, N.,** Dassel, K., Edelman, L., Farrell, T., et al. 2016. Interactions Between Life-Space and Quality of Life in Spousal Dyads Coping with Chronic Conditions. The Gerontological Society of America's 69th Annual Scientific Meeting. New Orleans, LA
- Wan, N.** 2016. Parkinson's Disease and Pesticides Exposure: New Findings from a Comprehensive Study in Nebraska, USA. Annual Meeting of the Association of American Geographers, San Francisco, CA, April 1, 2016.
- Wan, N.** 2015. Understanding life-space characteristics based on smart-phone collected data. Annual Meeting of the Association of American Geographers, Chicago, IL, April 23, 2015.
- Wan, N.,** Siahpush, M., McCarthy, M., Ramos, R., Correa, A., Shaikh, R. 2015. The association of e-cigarette marketing with socioeconomic and demographic characteristics of neighborhoods. Poster presentation at the 21<sup>st</sup> Annual Meeting of the Society for Research on Nicotine and Tobacco, Philadelphia, PA
- Wan, N.,** Siahpush, M., McCarthy, M., Ramos, R., Correa, A., Shaikh, R. 2015. Point-of-sale e-cigarette marketing among tobacco stores. Poster presentation at the 21<sup>st</sup> Annual Meeting of the Society for Research on Nicotine and Tobacco, Philadelphia, PA
- Shaikh, R. A., Siahpush, M., **Wan, N.** 2015. Association of socio-demographic and smoking related factors with the use of e-cigarettes among current smokers: results from a population based study. Poster presentation at the Society for Research on Nicotine and Tobacco 2015 Annual Meeting. Philadelphia, PA. February 25-28, 2015.
- Shaikh, R. A., Siahpush, M., **Wan, N.** 2015. The association of self-reported exposure to point-of-sale cigarette marketing with smoking induced deprivation in a population-based study. Poster presentation at the Society for Research on Nicotine and Tobacco 2015 Annual Meeting. Philadelphia, PA. February 25-28, 2015.
- Siahpush, M., Shaikh, R. A., Cummings, K.M., Hyland, A., Dodd, M., Carlson, L., Sikora Kessler, A., Meza, J., Wakefield, M. & **Wan, N.** 2015. The association of self-reported exposure to point-of-sale cigarette marketing with urge to buy cigarettes and make an unplanned purchase of cigarettes in a population-based study. Poster presentation at the Society for Research on Nicotine and Tobacco 2015 Annual Meeting. Philadelphia, PA. February 25-28, 2015.
- Siahpush, M., Shaikh, R. A., Cummings, K.M., Hyland, A., Dodd, M., Carlson, L., Sikora Kessler, A., Meza, J., Wakefield, M. & **Wan, N.** 2015. The association of self-reported exposure to point-of-sale cigarette marketing with craving to smoke in a population-based study. Poster presentation at the Society for Research on Nicotine and Tobacco 2015 Annual Meeting. Philadelphia, PA. February 25-28, 2015.
- Wan, N.** 2014. (invited talk) GIS applications in public health, healthcare, and the environment. The Utah Department of Health, Salt Lake City, UT
- Wan, N.** 2014. Deploying Mobile Monitoring for Aging Research: Conceptual and Methodological Perspectives. American Public Health Association 142<sup>nd</sup> Annual Meeting. New Orleans, LA

- Bhuyan, SS., **Wan, N.**, Deras, M, and Stimpson, JP. 2013. Access to Primary Care in Nebraska: An Integrated Approach. Nebraska Public Health Association Annual Conference, Grand Island, NE
- Bhuyan, SS., **Wan, N.**, Deras, M, and Stimpson, JP. 2013. Spatial and social factors associated with access to primary care in Nebraska. Rural Futures Conference, Lincoln, NE
- Wan, N.** 2013. (invited talk) Deploying mobile GIS for aging research, a methodological perspective. University at Buffalo, Buffalo, NY
- Wan, N.**, and Lin, G. 2013. Application of Mobile Technologies in Aging Research: A Case Study of Life-Space. XVth International Symposium in Medical/Health Geography, East Lansing, MI, July 9, 2013.
- Wan, N.**, and Lin, G. 2013. Classifying Smartphone Collected GPS Data for Environment-health Studies. Annual Meeting of the Association of American Geographers, Los Angeles, CA, April 12, 2013.
- Wan, N.** 2013. (invited talk) Applying GeoSpatial Technologies in Medical/Health Geography. Binghamton University, Binghamton, NY
- Wan, N.**, and Lin, G. 2012. Applying smart-phone and GIS in health research: a pilot study. Poster session of The 1<sup>st</sup> International Conference on Space, Time, and CyberGIS, Champaign, IL, August 6-8, 2012
- Wan, N.**, and Lin, G. 2012. Using cell-phone GPS data to monitor adult life-space: a feasibility assessment. Annual Meeting of the Association of American Geographers, New York, NY, February 28, 2012.
- Wan, N.**, and Zhan, FB. 2011. Disparities of colorectal cancer diagnosis in Texas, 1996-2003. Annual Meeting of the Association of American Geographers, Seattle, WA, March 2011.
- Wan, N.** 2010. A 3-step floating catchment area method for characterizing potential spatial access to medical services. Annual meeting of the Association of American Geographers, Southwestern Division. Tahlequah, OK, October 2010.
- Wan, N.** 2010. Socioeconomic disparity of prostate cancer mortality in Texas. 2<sup>nd</sup> Annual Cancer Research Symposium, Texas State University-San Marcos, San Marcos, TX, April 2010.
- Wan, N.**, and Zhan, FB. 2010. Socioeconomic disparities of prostate cancer mortality and the impact of geographic scale. Annual Meeting of the Association of American Geographers, Washington, DC, April 2010.
- Wan, N.**, and Zhan, FB. 2009. Economic development and public health: What happened to the Austin-San Antonio Corridor during 2000-2006. Annual Meeting of the Association of American Geographers, Las Vegas, NV, April 2009.
- Wan, N.**, and Zhan, FB. 2008. A spatially weighted degree model for network vulnerability analysis. Poster session of the Annual Meeting of the Association of American Geographers, Boston, MA, April 2008.

## Awards and Scholarships

- Junior Faculty Research Leave Award, College of Social & Behavioral Sciences, University of Utah, 2016
- NSF Travel Award (\$1000) to the 1<sup>st</sup> International Conference on Space, Time, and CyberGIS, 2012
- Third place of student paper competition, Southwestern Division, Association of American Geographers, Tahlequah, OK, 2010
- Graduate College Scholarship, Texas State University-San Marcos, 2008, 2009, 2010

## Teaching

### Courses Taught at the University of Utah

Health Geography in the Age of Global Pandemics

Introduction to Medical Geography

GIS and Public Health

Topics in Medical/Health Geography

Principals of Cartography

Geocomputation

Advanced Methods in GIS

### Courses Taught at Nebraska Department of Health & Human Services

GIS Applications in Public Health

### Courses Taught at the University of Nebraska Medical Center

Medical Geography and Spatial Methods in Health Services (Co-lecturer)

### Courses Taught at Texas State University-San Marcos

Fundamentals of GIS (Lab Instructor)

## Mentoring

### Graduate Committee Membership

#### 1. Ph.D.

2022-present Moongi Choi

2022-present Ning Xiong

2019-present Meitong Liu

2019-present Jiuying Han (as major advisor)

2019-present Sunku Kwon

2017-present Andrea Davis (as major advisor)

2015-present Rebecca Steed (as major advisor)

2018-2022 Yangyi Wu

2018-2022 Weiye Xiao

2016-2021 Matthew McCullough (as major advisor)

2015-2019	Emily Nicolosi
2015-2018	Brent Lloyd
2015-2016	Dapeng Li
2014-2016	Han Li
2015-2016	Ling Zhang

## **2. M.S.**

2023-present	Longyin (Autumn) Lee (as major advisor)
2018-2019	Armita Kar
2016-2020	Steven Lizotte (as major advisor)
2015-2017	Andrea Davis (as major advisor)
2015-2017	Aaron Pulver
2014-2015	Ryan Hile
2014-2016	Seth Bishop
2014-2016	Colby Page

## **3. Master of Science in Geographic Information Science (MSGIS)**

2016-2017	Yiwei Wang
2017-2018	Marc Wilson, Alex McComb
2018-2020	Garrett Hopkins (as major advisor)
2018-2019	Matthew DeLora, Hallie Johnson , Sabita Silwal, Erik Neemann, Nicole Proulx, Sarah Rivera, Adrian Sellars (as major advisor)
2019-2020	Spencer Roddan (as major advisor)
2020-2021	Vivian Chan, Taylor Nelson, Jessica Shapiro (as major advisor)
2021-2022	Dianne Pablo, Julia Surkis, Troy Hagemeyer, Martin Carricaburu (as major advisor)
2022-2023	Jack Ronnie, Avery Durham (as major advisor)

## **Postdoctoral Mentoring**

2017-2019	Chris Cambron, Huntsman Cancer Institute (as co-mentor)
2018-2022	Nasser Sharareh, School of Medicine (as co-mentor)

## **Faculty Mentoring**

2019-present	Jessica Sanders, School of Medicine (as co-mentor)
2019-present	Michelle Debbink, School of Medicine (as co-mentor)
2020-present	John Pearson, School of Medicine (as co-mentor)
2022-present	Elliot Asare, School of Medicine (as co-mentor)

## **Services**

Editorship

Associate Editor *Preventing Chronic Disease* 2022-

#### Journal Review

*Annals of the Association of American Geographers* 2018, 2020

*Annals of GIS* 2019-2023

*Applied Geography* 2015-2017

*BMC Health Services Research* 2015

*BMC Public Health* 2016

*Cancer Causes and Control* 2012

*Computers, Environment and Urban Systems* 2014-2018

*Habitat International* 2019

*Health & Place* 2015-2023

*International Journal of Applied Geospatial Research* 2013

*International Journal of Geographic Information Science* 2015

*International Journal of Health Geographics* 2014, 2015

*International Journal of Health Policy and Management* 2014

*Journal of Rural Health* 2016-2017 (voted me as an Exceptional Reviewer in 2018)

*Scientific Reports* 2016

*Social Science & Medicine* 2020

*Soil and Sediment Contamination* 2011-2013

*Southern Medical Journal* 2011-2016

*Springer Book Preview* 2018

#### Grant Review

*National Science Foundation, Geography and Spatial Sciences Program* 2018

*International Institute for Applied Systems Analysis, Austria* 2016

*Israel Ministry of Science and Technology, Israel* 2015

#### Department/College Services

*Director of Master's of Science in Geographical Information Science (MSGIS),  
Department of Geography, University of Utah, 2018-*

*Research Committee, Department of Geography, University of Utah 2015-*

*Colloquia Chair, Department of Geography, University of Utah, 2017-2018*

*C-FAHR Cluster Hire Search Committee, College of Social and Behavioral Sciences,  
University of Utah, 2015-2016*

*Advisory Board, Health, Society, & Policy Program, College of Social and Behavioral  
Sciences, University of Utah, since 2015*

*Undergraduate Committee, Department of Geography, University of Utah 2015*

*Graduate Committee, Department of Geography, University of Utah 2014-2017*

*Colloquia Committee, Department of Geography, University of Utah 2014-2017*

*Pre-Med Student Colloquium Committee, College of Social and Behavioral Sciences,  
University of Utah 2015*

## Community Services

*Guest Lecturer, Salt Lake Community College, Salt Lake City, Utah 2018*

*Committee Member, Cancer Cluster Investigation Protocol, Utah Department of Health 2016*

*Guest Lecturer, Churchill Junior High, Salt Lake City, Utah 2016, 2017*

## Conference services

*Reviewer, Jacques May Thesis Prize, the Association of American Geographers. 2016, 2021*

*Session Organizer and Chair (Agriculture, Environment, and Health), Annual Meeting of the Association of American Geographers, San Francisco, CA, April 1, 2016.*

*Session Chair (GIS: Challenges for Analysis), Annual Meeting of the Association of American Geographers, New York, NY, February 28, 2012.*

*Session Chair, 5th Annual Texas Geography Student Research Symposium (TxGSRS), Texas State University-San Marcos, April 2009*

## Professional Organizations

Member of the Association of American Geographers (AAG), since 2007

Member of the American Public Health Association (APHA), since 2014

Member of the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS), since 2010