

Chetan Tiwari

Department of Geography & the Environment

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Academic Appointments

- 2015– Associate Professor, Department of Geography & the Environment, University of North Texas
- 2009-15 Assistant Professor, Department of Geography & the Environment, University of North Texas
- 2008 Instructor, Department of Geography, University of North Texas
- 2001-08 Graduate Research/Teaching Assistant, The University of Iowa

Education

- 2008 PHD in Geography, The University of Iowa, Iowa City, Iowa, USA
- 2006 MA in Geography, The University of Iowa, Iowa City, Iowa, USA
- 2000 BE in Industrial Engineering & Management, RV College of Engineering, Bangalore, India

Publications

Torres A.V.[†], [Tiwari C.](#), and Atkinson S. **Revise & Resubmit, Pending Final Decision.** Progress in Ecosystem Services Research: Key Themes and Approaches. *Ecosystem Services*.

Norheim K.[†], Marks C., and [Tiwari C.](#) **Revise & Resubmit, Pending Final Decision.** Spatio-temporal Trends of Ozone and Respiratory Illness in the Dallas-Ft. Worth Urban Area. *PeerJ*.

Gwalani H.[†], [Tiwari C.](#), and Mikler A.R. **Revise & Resubmit, Pending Final Decision.** Evaluation of Heuristics for the P-Median Problem: Scale and Spatial Demand Distribution. *Transactions in GIS Computers, Environment, and Urban Systems*.

Oppong J. and [Tiwari C.](#) **2020.** GIS and Spatial Representation of COVID: Challenges and Missteps. *COVID-19 and Similar Futures: Geographical Perspectives, Issues and Agendas*. Springer.

Rous J., Oppenheim V., Kim M, Fry M., [Tiwari C.](#), and Rice M. **2020.** Evaluating determinants of shale gas well locations in an urban setting. *The Annals of Regional Science*.

Kala A. K.[†], Atkinson S. F., and [Tiwari C.](#) **2020.** Exploring the relationships between population vulnerability and vector-borne disease risk - a spatial modeling and multivariate geovisualization approach. *PeerJ*

[†]Graduate Student

Tiwari C., Sterling D, and Allsop L. **Accepted**. Linking Disease Outcomes to Environmental Risks: The Effects of Changing Spatial Scale. *Geospatial Technology for Human Well-Being and Health*. Springer.

Rincon E.[†] and Tiwari C.. **2020**. Construction of a Demand Metric for Supermarket Site Selection: A Case Study of South Dallas. *Papers in Applied Geography*

Tiwari C., & Indrakanti S.[†] **2020**. Disease Diffusion and Mapping. *International Encyclopedia of Human Geography*. Elsevier.

Jones B.[†], Tiwari C., & Ramisetty-Mikler S. **2019**. A Data-Driven Approach Using 911-Call Data to Reconfigure Police Beat Zones. *Papers in Applied Geography*

Ruckthongsook W.[†], Tiwari C., Oppong J., & Natesan P. **2018**. Evaluation of Threshold Selection Methods for Adaptive Kernel Density Estimation in Disease Mapping. *International Journal of Health Geographics*. 17(1).

Iyanda A. E.[†], Oppong J., Hamilton P. & Tiwari C. **2018**. Using GIS to Detect Cluster and Spatial Disparity in Maternal Health Indicators: A Need for Social Health Interventions. *Social Work in Public Health*. 33(7-8), pp. 449-466.

King J.[†], Tiwari C., Mikler A. R. & O'Neill M. **2018**. Challenges of Designing and Implementing High Consequence Infectious Disease Response. *Disaster Medicine and Public Health Preparedness*.

Sumanasinghe, N.[†], Mikler A. R., Muthukudage J., Tiwari, C.; & Quiroz R. **2017**. Data driven prediction of dengue incidence in Thailand. *International Conference on Computing and Information Technology*. Springer.

Rice, M. D, O'Hagan S.B., Tiwari C., Lyons, D.I., Green, M. B. & Oppenheim, V. **2018**. Defining the Record of High-Growth Firms by Metropolitan Region: What Happens to the Inc. 500? *Papers in Applied Geography*

Kala, A.K.[†], Tiwari, C., Mikler, A.R. & Atkinson, S.F. **2017**. A comparison of least squares regression and geographically weighted regression modeling of West Nile virus risk based on environmental parameters. *PeerJ*. 5, pp.e3070.

Stoddard, K. I.[†], Hodge, V., Maxey, G., Tiwari, C., Cready, C., & Huggett, D. B. **2017**. Investigating Research Gaps of Pharmaceutical take back Events: An Analysis of take back Program Participants' Socioeconomic, Demographic, and Geographic Characteristics and the Public Health Benefits of take back Programs. *Environmental Management*. 1-14.

Oppong, J. R., Boakye, K.[†], Edziyie, R., Owusu, A. Y., & Tiwari, C. **2017**. Emergency fire response in Ghana: the case of fire stations in Kumasi. *African Geographical Review*. pp. 1-9.

[†]Graduate Student

Rice, M. D., Ostrander, A.[†], & Tiwari, C. **2016**. Decoding the Development Strategy of a Major Retailer: Wal-Mart's Expansion in the United States. *The Professional Geographer*. 68(4), 640-649.

Sumanasinghe, N.[†], Mikler, A., Tiwari, C., & Muthukudage, J. **2016**. Geo-statistical dengue risk model using GIS techniques to identify the risk prone areas by linking rainfall and population density factors in Sri Lanka. *Ceylon Journal of Science*. 45(3).

Indrakanti S.[†], Mikler, A. R., O'Neill II, M., & Tiwari, C. **2016**. Quantifying access disparities in response plans. *PloS One*. 11(1), e0146350.

Oppong J. R., Heald, S.[†], Ruckthongsook W.[†], & Tiwari C. **2016**. Spatial analysis of HIV/AIDS survival in Dallas County, Texas. *Population Health Intervention Research: Geographical Perspectives*. Routledge.

O'Neill M., Mikler A.R., Indrakanti S.[†], Tiwari C. and Jimenez T. **2014**. RE-PLAN: an extensible software architecture to facilitate disaster response planning. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*. 44(12), pp.1569-1583.

Tiwari C., Beyer K., and Rushton G. **2014**. Impact of Data Suppression on Local Mortality Rates: The Case of CDC WONDER. *American Journal of Public Health*.

Oppong J., Kutch L.[†], Tiwari C., and Arbona S. **2014**. Vulnerable Places: Prison Locations, Socioeconomic Status and HIV Infection in Texas. *The Professional Geographer*.

Tiwari C. **2013**. Methods for Creating Smoothed Disease Maps. *Geographic Health Data: Fundamental Techniques for Analysis*. CABI.

Avina A.[†] and Tiwari C. **2013**. Cartography and Visualization. *Geographic Health Data: Fundamental Techniques for Analysis*. CABI.

Beyer K., Tiwari C., and Rushton G. **2012**. Five essential properties of disease maps. *Annals of the Association of American Geographers*.

Jimenez T.[†], Mikler A., O'Neill II M., Tiwari C. **2012**. Maps, rates, and fuzzy mountains: Generating meaningful risk maps. *IEEE International Conference on Bioinformatics and Biomedicine*.

Oppong J., Tiwari C., Ruckthongsook W.[†], Huddleston J.[†], and Arbona S. **2012**. Mapping Late Testers for HIV in Texas. *Health and Place*.

Tamara S.[†], Mikler A., and Tiwari C. **2011**. A Novel Space Partitioning Algorithm to Improve Current Practices in Facility Placement. *IEEE Transactions on Systems, Man, and Cybernetics*.

Cukor-Avila, P., L. Jeon[†], P. C. Rector, Tiwari, C., and Z. Shelton. **2012**. Texas - It's like a

[†]Graduate Student

whole nuther country: Mapping Texans' perceptions of dialect variation in the Lone Star state. *Texas Linguistics Forum 55, Proceedings of the Twentieth Annual Symposium About Language and Society*.

Avina A.[†], Tiwari C., Williamson P., Oppong J., and Atkinson S. **2011**. A Spatially Explicit Environmental Health Surveillance Framework for Tick-Borne Diseases. In Maantay J. and McLafferty S. (Editors). *Geospatial Analysis of Environmental Health*. Netherlands: Springer. pp. 357-371. doi:[10.1007/978-94-007-0329-2_18](https://doi.org/10.1007/978-94-007-0329-2_18)

Tiwari C. and Tewari V. **2011**. India: Localized Introduction of GIS in Elite Urban Private Schools and Prospects for Diffusion. In Milson A., Demirci A., and Kerski J. (Editors). *International Perspectives on Teaching and Learning with GIS in Secondary Schools*. Netherlands: Springer. 2011.

Tiwari C. and Rushton G. **2010**. A Spatial Analysis System for Integrating Data, Methods, and Models on Environmental Risks and Health Outcomes. *Transactions in GIS*, 14(s1):177-195. doi:[10.1111/j.1467-9671.2010.01220.x](https://doi.org/10.1111/j.1467-9671.2010.01220.x)

Rushton G. and Tiwari C. **2009**. Methods: Spatial Filtering and Kernel Estimation. In Kitchin R. and Thrift N. (Editors). *International Encyclopedia of Human Geography*. Oxford: Elsevier. pp. 359-364.

Armstrong M. and Tiwari C. **2007**. Geocoding Methods, Materials and First Steps Toward a Geocoding Error Budget. In Rushton G., Armstrong M., Gittler J., Greene B., Pavlik C., and West M (Editors). *Geocoding Health Data: The Use of Geographic Codes in Cancer Prevention and Control, Research and Practice*. Florida: CRC Press. pp. 11-35.

Tiwari C. and Rushton G. **2005**. Using Spatially Adaptive Filters to Map Late Stage Colorectal Cancer Incidence. In Fisher P. (Editor). *Developments in Spatial Data Handling*. Berlin: Springer-Verlag. pp. 665-676.

TECHNICAL REPORTS

Ruggiere P., Sterling D., and Tiwari C. **2011**. Baseline Health Assessment of Texas Communities Living Near a Radioactive Waste Disposal. *Report Prepared for the Texas Department of State Health Services and Texas Commission for Environmental Quality*.

Funded Research

EXTERNAL GRANTS

2021–24 O'Neill, M. (Lead PI), Tiwari C., and Ludi S. Data-Driven Response Planning for Reducing Access Disparities during Bio-Emergencies. **\$572,467** (UNT Component. Primary Applicant: Georgia State University). *Status: Pending*. Role: Co-PI.

[†]Graduate Student

- 2019–22 Ramisetty-Mikler, S. (Lead PI, Georgia State University) and Tiwari C (PI, UNT). Justice for Sexual Assault Survivors. City of Denton. **\$40,480**. *Status: Active*.
- 2019–20 Collins B (Lead PI), Tiwari C., and Keyes L. Senior Services Age Friendly Cities Assessment, San Antonio, Texas. U.S Department of Health & Human Services - City of San Antonio. **\$99,357**. *Status: Complete*. Role: Co-PI.
- 2018–22 Mikler A (Lead PI), Tiwari C., O’Neill II M, and Ramisetty-Mikler S. NIH R01: Data-Driven Response Planning for Reducing Access Disparities during Bio-Emergencies. National Institutes of Health. **1,440,243**. *Status: Declined, Bridge Funding (R-56) Awarded for Year 1*. Role: Co-PI.
- 2016–17 Mikler A. (Lead PI), Tiwari C. and O’Neill II M. DSHS RSS Phase II. Texas Department of State Health Services. **\$211,017**. *Status: Complete*. Role: Co-PI.
- 2015–16 Mikler A (Lead PI) and Tiwari, C. Developing Computational Methods To Explore Feasible Strategies For The Timely Distribution Of Medical Countermeasures From Regional RSS Sites To PODs. Texas Department of State Health Services. **\$206,869**. *Status: Complete*. Role: Co-PI.
- 2015 Mikler A. (Lead PI), Tiwari C. and O’Neill II M. NSF RAPID: Computational Methods for Specifying Regional Ebola Specific Resource Coverage. National Science Foundation. **\$119, 834**. *Status: Complete*. Role: Co-PI.
- 2013–15 Mikler A. (Lead PI), Tiwari, C., Schneider T. and Bryce R. NIH R01: Minimizing Access Disparities in Bio Emergency Response Planning. National Institutes of Health. **\$799,911**. *Status: Complete*. Role: Co-PI.
- 2010–13 Mikler A. (Lead PI) and Tiwari, C. NIH R15: A Computational Framework for Assessing the Feasibility of Bio-emergency Response Plans. National Institutes of Health. **\$429,608**. *Status: Complete*. Role: Co-PI.
- 2010–11 Ruggiere P. (Lead PI), Sterling D. and Tiwari, C. Radioactive Waste Assessment - Health Surveillance Research Study. Texas Commission on Environmental Quality. **\$250,000**. *Status: Complete*. Role: Co-Investigator.
- 2010–12 Ruggiere P. (Lead PI), Sterling D. and Tiwari, C. Asthma Rates of Children living near Superfund Sites and in other parts of Texas. Texas Commission on Environmental Quality / Texas Environmental Health Institute. **\$250,000**. *Status: Complete*. Role: Co-Investigator.

INTERNAL GRANTS

- 2008–09 Tiwari, C. Research Initiation Grant Program. University of North Texas. **\$4994**. *Status: Complete*. Role: PI.
- 2008–09 Tiwari, C. Junior Faculty Summer Research Fellowship. University of North Texas. **\$5000**.

Status: Complete. Role: PI.

2008–09 Tiwari, C. Learning Enhancement Grant. University of North Texas. **\$5000**. Status: Complete. Role: PI.

Workshops Conducted

2013 Tiwari C. and Rushton G. Pre-Symposium Workshop on GIS and Health. *XVth International Medical Geography Symposium*.

Conference Presentations

2019 Gwalani H., Tiwari C, and Mikler A. Demand-based Spatial Partitioning for Risk Mitigation. *2019 North American Regional Science Conference*.

2019 Gwalani H., Tiwari C, and Mikler A. Evaluation of Heuristics for the P-Median Problem: Spatial Demand Distribution and Size. *2019 North American Regional Science Conference*.

2018 Portillo E. and Tiwari C. Geography of Retail Clinics Post Affordable Care Act. *2018 Applied Geography Conference*.

2018 Christian D. and Tiwari C. Locating Disease Incidence Points Using Adaptive Spatial Filters. *2018 AAG Annual Meeting*.

2018 Tiwari C. Invited Talk: Using GIScience to Control the Statistical Reliability of Disease and Mortality Maps. *Texas Health GIS Conference*.

2016 Tiwari C., Mikler A, O'Neill M. The REsponse PLaN ANalyzer (RE-PLAN) System for Bio-Emergency Preparedness Planning. *2016 AAG Annual Meeting*.

2016 Rukthongsook W, Oppong J, and Tiwari C. Bandwidth Selection for Kernel Density Estimation in Disease Mapping. *2016 AAG Annual meeting*.

2016 McGlone J, Oppong J, and Tiwari C. Tuberculosis Vulnerability in Tarrant County. *2016 AAG Annual meeting*.

2016 Brooks K. and Tiwari C. The Problems of Estimating Interaction Between Mosquito and Human Populations in an Urban Environment. *SWAAG 2016*.

2016 Jones B and Tiwari C. Predicting Alcohol Related Crime in Denton. *SWAAG 2016*.

2016 Murray R., Oppenheim V., O'Hagan S, Tiwari C., Lyons D, and Green M. B. Tracking the Development of High-Growth Firms by Metropolitan Region. *2016 AAG Annual meeting*.

2016 Oppenheim V., Kim M., Rice M., Rous J., Fry M., and Tiwari C. An Analysis of Gas Well

- Density and Industrial Location Variables in the City of Denton, Texas. *2016 AAG Annual meeting.*
- 2015 Tiwari C. and Jones J. Effects of Non-Homogeneous Population Distribution on Smoothed Maps Produced Using Kernel Density Estimation Methods. *2015 AAG Annual Meeting.*
- 2015 Desai K., Tiwari C. and Oppong J. Influence of the choice of disease mapping method on interpretation of population characteristics in areas of high disease burdens. *2015 AAG Annual Meeting.*
- 2015 Jones B., Tiwari C. and Oppong J. Evaluating the Distribution of 911 calls in Denton, TX. *2015 AAG Annual Meeting.*
- 2015 Rukthongsook W, Oppong, J. and Tiwari C. Choice of disease mapping method: Non-parametric or model-based approach? *2015 AAG Annual meeting.*
- 2015 Irby A., Tiwari C. and Oppong J. Challenges in Producing Accurate Cancer Mortality Maps of the United States. *2015 SWAAG Meeting.*
- 2015 Jones B., Tiwari C. and Mikler S. Computational Approach for Improving the Allocation of Police Resources across Space. *2015 SWAAG Meeting.*
- 2015 Iyanda A, Tiwari C., Mikler S. Mapping the Spatial Patterns of Neural Tube Defects (NTDs) among Hispanic and Non-Hispanic Populations in Texas. *2015 SWAAG Meeting.*
- 2015 Oppenheim V., Fry M., Rice M, Rous J., and Tiwari C. A Preliminary Analysis of Gas Well Density and Socioeconomic Variables in the City of Denton, Texas. *2015 SWAAG Meeting.*
- 2015 Pace W, Oppong J, and Tiwari C. Using Dogs to Sniff Out the Geographic Distribution of Trypanosoma Cruzi in Denton County. *2015 SWAAG Meeting.*
- 2015 Doyle T, Oppong J, and Tiwari C. Spatial Patterns of Violent Crime in the City of Dallas, 2004-2014. *2015 SWAAG Meeting.*
- 2015 McGlone J, Oppong J, and Tiwari C. Tuberculosis Vulnerability in Tarrant County. *2015 SWAAG Meeting.*
- 2015 Brian Franklin, Joseph Oppong, and Chetan Tiwari. HIV Death Rates in Rural Texas Counties: An Analysis of Contributing Factors. *2015 SWAAG Meeting.*
- 2014 Kala A., Atkinson S., Tiwari C., Oppong J. and Mikler A. Using Multivariate Geovisualization to Model the Relationships between Place Vulnerability and West Nile Virus Risk. *Proceedings from the 7th International Conference on Environmental Science and Technology*
- 2014 Tiwari, C. and Oppong, J. A Parallel Processing Approach for Producing Smoothed Maps of Temporal Change in Disease Burdens. *Annual Meeting of the Association of American Geog-*

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- 2013 Tiwari C. Adjusting Disease Maps for Population Differences in Race/Ethnicity. *XVth International Medical Geography Symposium.*
- 2013 Tiwari C. Adjusting Disease Maps for Population Differences in Race/Ethnicity. *58th Annual Meeting of the Association of American Geographers.*
- 2013 Tiwari C. and Carpenter E. Does socio-economic status influence the spatial patterns of natural gas drilling? A case study of Tarrant County, Texas. *2013 Conference of the Medical Geology Association.*
- 2013 Oppong J., Tiwari C. and Ruckthongsook W. Vulnerable Places and Vulnerable People: The Geography of HIV infection in Harris County, Texas. *XVth International Medical Geography Symposium.*
- 2013 Ruckthongsook W., Oppong J., and Tiwari C. Spatiotemporal Variation of Modes of Exposure among Youth HIV/AIDS in Texas 1999-2011. *XVth International Medical Geography Symposium.*
- 2013 Hedrich M., Oppong J., and Tiwari C. Wealth Gap-Health Gap: Impact on HIV/AIDS in Texas. *XVth International Medical Geography Symposium.*
- 2013 Danae D., Oppong J., and Tiwari C. The Geography of Disabled Populations in Texas Counties and their Vulnerability in Natural Disasters. *XVth International Medical Geography Symposium.*
- 2013 Miyakado H., Oppong J., Tiwari C., Mikler S., and Langlois P. Local Food Environment and Birth Defects in Large Urban Areas in Texas. *58th Annual Meeting of the Association of American Geographers.*
- 2013 Ruckthongsook W., Oppong J., Tiwari C., and Arbona S. Spatial variation of modes of exposure to HIV/AIDS in different age and race/ethnic groups in Texas. *58th Annual Meeting of the Association of American Geographers.*
- 2013 Kala A., Atkinson S., Oppong J., and Tiwari C. Tele-epidemiology approach for modeling place vulnerability: A case study of West Nile Virus. *58th Annual Meeting of the Association of American Geographers.*
- 2013 Srisombat J., Oppong J., Tiwari C., and Arbona S. Neighborhood characteristics and Tuberculosis in Tarrant County Texas. *58th Annual Meeting of the Association of American Geographers.*
- 2012 Tiwari C. Assessing the Spatial Distribution of Gas Well Drilling in North Texas: A Case Study of Denton County. *Annual Meeting of the Association of American Geographers.*
- 2012 Oppong J. and Tiwari, C. Predicting the Spatial Pattern of HIV/AIDS in Texas. *Annual Meeting*

of the Association of American Geographers.

- 2012 Tiwari C. Does Social Vulnerability Affect Proximity to Gas Drilling Activities: A Case Study of Elementary Schools In Denton and Tarrant Counties. *American Planning Association Texas Chapter Meeting 2012.*
- 2011 Tiwari C. and Oppong J. A Method for Optimizing Disease Maps to Predefined Regions of Similar Risk. *Annual Meeting of the Association of American Geographers.*
- 2011 Kutch L., Oppong J., and Tiwari, C. Characteristics of Neighborhoods Close to Prison Units in Texas with High Rates of HIV/AIDS. *Annual Meeting of the Association of American Geographers.*
- 2011 Oppong J., Tiwari, C., and Arbona C. Is There a Generalized HIV Epidemic in Impoverished Urban Areas of Texas? *Annual Meeting of the Association of American Geographers.*
- 2010 Tiwari C. and Oppong J. A Method for Creating Spatially Continuous Maps of Age-Adjusted Disease Burdens. *Annual Meeting of the Association of American Geographers.*
- 2010 Kutch L., Oppong J., and Tiwari, C. The impact of Texas Department of Criminal Justice prison facilities on the HIV/AIDS rates of the general community in Texas Counties. *Annual Meeting of the Association of American Geographers.*
- 2010 Oppong J. and Tiwari, C. Neighborhood Characteristics and HIV/AIDS in Texas. *Annual Meeting of the Association of American Geographers.*
- 2010 Tiwari C. A Spatial Analysis System for Environmental Health Surveillance. *ESRI User Conference 2010.*
- 2010 Tiwari C. A Method for Producing Disease Maps with High Levels of Geographic Detail. *Applied Geography Conference.*
- 2010 Tiwari C. Creating Age-Adjusted Maps of HIV/AIDS Burdens in Texas. *17th Texas HIV/STD Conference.*
- 2010 Harold A., Oppong J. and Tiwari, C. Modeling Place Vulnerability of HIV/AIDS in Texas. *17th Texas HIV/STD Conference.*
- 2009 Stroup A., LeFevre S., Harrell J., McNeally P., Tiwari, C., and Beyer K. Cancer Mapping with WebDMAP in Utah. *National Environmental Public Health Conference.*
- 2009 Tiwari C. Constructing a Web-Based System for Disease Mapping. *Annual Meeting of the Association of American Geographers.*
- 2007 Tiwari C. Spatial Data Handling Challenges in Developing a GIS-based Disease Surveillance System for Environmental Health. *Annual Meeting of the Association of American Geographers.*

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- 2007 Rushton G., Cai Q, and Tiwari, C.. Mapping Cancer Burdens for Cancer Control in Iowa. *CDC Annual Conference on Assessment Initiative*.
- 2006 Tiwari C. Developing Automated Techniques for Locating Rural Residential Locations: An Infrastructure for Estimating Environmental Exposures. *Annual Meeting of the Association of American Geographers*.
- 2005 Tiwari C. Problems in Developing an Agent-based System to Detect Spatial Variations in Disease Risk. *Annual Meeting of the Association of American Geographers*.
- 2005 Tiwari C. Intelligent Agent-based Spatial Analysis System: A tool for solving privacy and confidentiality issues in disease surveillance. *11th International Medical Geography Symposium*
- 2004 Tiwari C. Design Problems for a Revised Software Model for Mapping Disease Rates (DMAP III). *Annual Meeting of the Association of American Geographers*.
- 2004 Tiwari C. Using Spatially Adaptive Filters to Map Late-Stage Colorectal Cancer Incidence in Iowa. *11th International Symposium on Spatial Data Handling*.
- 2003 Tiwari C. Using Spatially Adaptive Filters to Map Late-Stage Colorectal Cancer Incidence in Iowa. *Annual Meeting of the Association of American Geographers*.
- 2003 Tiwari C. Spatially Adaptive Filters in Disease Mapping. *2003 CDC Cancer Conference*

Conference Chair/Organizer/Panelist

- 2020 Panel Organizer & Chair. Socio-economic Burdens and Policy Impacts of the COVID-19 Pandemic. *Annual Meeting of the American Association of Geographers*
- 2020 Panel Organizer & Chair. Data & Methodological Challenges for the Geospatial Analysis of the COVID-19 Pandemic. *Annual Meeting of the American Association of Geographers*
- 2016 Session Organizer & Chair. Health & Medical Geography SWAAG
- 2016 Session Organizer & Chair. Health & Medical Geography SWAAG
- 2011 Session Chair. Global Perspectives on HIV/AIDS *Annual Meeting of the Association of American Geographers*.
- 2011 Session Organizer. Women's Health HIV and Africa *Annual Meeting of the Association of American Geographers*.
- 2010 Session Chair. Medical Geography Group *Applied Geography Conference*.

- 2010 Session Organizer. Special Interest Session on Epidemiology and GIS *17th Texas HIV/STD Conference*.
- 2010 Session Organizer. Student Map Poster Session *Applied Geography Conference*.
- 2010 Invited Panelist. Map Communication and Technology Issues *Applied Geography Conference*.

Students Supervised

- 2021(e) Angelica Valencia-Torres (PhD, Environmental Science) - Major Professor
- 2021(e) Douglas Smith (PhD, Philosophy) - Co-Major Professor
- 2021(e) Janthima Srisombat (PhD, Environmental Science) - Committee Member
- 2021(e) Reynaldo Quiroz (PhD, Computer Science) - Committee Member
- 2021(e) Faris Hawamdeh (PhD, Computer Science) - Committee Member
- 2021(e) Kate Lester (PhD, Environmental Science) - Committee Member
- 2021(e) Kari Northeim (PhD, Environmental Science) - Committee Member
- 2021(e) Sampson Akwafuo (PhD, Computer Science) - Committee Member
- 2020 Melissa Barnett (MS, Geography) - Major Professor
- 2020 Kristin Brooks (MS, Geography) - Major Professor
- 2020 Joseph Helsing (PhD, Computer Science) - Committee Member
- 2020 Harsha Gwalani (PhD, Computer Science) - Committee Member
- 2020 Jody Huddleston (PhD, Environmental Science) - Committee Member
- 2020 Debbie Christian (MS, Geography) - Major Professor
- 2019 Matt Sorenson (MS, Geography) - Committee Member
- 2019 Connor Reed (MS, Geography) - Committee Member
- 2019 Ethan Portillo (MS, Geography) - Major Professor
- 2018 Sultanah Alshammari (PhD, Computer Science) - Committee Member
- 2018 Nirosha Sumanasinghe (PhD, Computer Science) - Committee Member
- 2018 Brian Richardson (MS, Geography) - Major Professor
- 2018 Brince Jones (MS, Geography) - Major Professor
- 2018 Bink Ruckthongsook (PhD, Environmental Science) - Committee Member
- 2015 Saratchandra Indrakanti (PhD, Computer Science) - Committee Member
- 2015 Khyati Desai (MS, Geography) - Major Professor
- 2014 Alicia Gray (MS, Geography) - Committee Member
- 2014 Katherine Lester (MS, Geography) - Committee Member
- 2014 Jesse Jones (MS, Geography) - Major Professor
- 2013 Amanda Reagan (MS, Geography) - Committee Member
- 2013 Lisa Jeon (MS, Linguistics) - Committee Member
- 2013 Emmanuel Aggrey Korsah (MS, Geography) - Committee Member
- 2012 Jane Ebiniro (MS, Geography) - Committee Member
- 2012 Stephanie Heald (MS, Geography) - Committee Member
- 2012 Haruna Miyakado (MS, Geography) - Committee Member
- 2012 David Ferring (MS, Geography) - Committee Member
- 2012 Yang Liu (MS, Geography) - Minor Professor
- 2015 Iris Gomez-Lopez (PhD, Computer Science) - Committee Member

2012 Mara Hedrich (MS, Geography) - Committee Member
 2011 Clint Petty (MS, Geography) - Committee Member
 2014 Marty O'Neill (PhD, Computer Science) - Committee Member
 2014 Olivia Loza (PhD, Computer Science) - Committee Member
 2011 Libbey Kutch (MS, Geography) - Committee Member
 2010 Anjeev Nepali (MS, Geography) - Committee Member
 2010 Aldo Avina (MS, Geography) - Committee Member
 2011 Tamara Schneider (PhD, Computer Science) - Committee Member
 2010 Paula Rafferty (MS, Geography) - Committee Member
 2010 Anjeev Nepali (MS, Geography) - Committee Member
 2009 Gary Parker (MS, Geography) - Committee Member
 2009 Sathya Ramesh (MS, Geography) - Committee Member

Teaching and Mentoring

COURSES

2008– GEOG 1710: Earth Science
 GEOG 1170: Culture, Environment, and Society
 GEOG 2110: Foundations of Geographic Research (Undergraduate)
 GEOG 3500: Introduction to Geographic Information Systems
 GEOG 4560 & 5560: Introduction to GIS Programming
 GEOG 4410 & 5510: Location Allocation Modeling
 GEOG 5185 & 5185: Statistical Research Methods in Geography
 GEOG 4580 & 5580: Health GIS
 GEOG 4570 & 5570: Enterprise GIS
 GEOG 5800: Research Design and Geographic Applications
 GEOG 4195 & 5195: Geospatial Data Analytics and Visualization

HEALTH GIS RESEARCH GROUP

2008– I mentor undergraduate and graduate students through the Health & Medical Geography Research Group (HMGRG) at UNT, which focuses on stimulating research creativity and peer mentoring opportunities among our students. Students in the research group have produced peer-reviewed journal publications, participated in various international and national conferences, and have been awarded prestigious awards and grants including NSF Graduate Research Fellowships.

Service

SERVICE TO THE UNIVERSITY

2019–20 Member, UNT Faculty Senate
 2019-20 Member, Graduate Student Travel Grant Evaluation Committee.

SERVICE TO THE COLLEGE

- 2010– Member, College of Liberal Arts and Social Sciences Computing Committee
- 2017 External Member, Department of Economics Faculty Search Committee
- 2016 External Member, Department of Biology Faculty Search Committee
- 2011 External Member, Department of Mathematics Faculty Search Committee
- 2010 Member, Joint UNT-HSC Environmental & Occupational Health - UNT Geography “Health GIS Certificate” Committee

SERVICE TO THE DEPARTMENT

- 2020– Chair, Advancement Committee
- 2020– Undergraduate Academic Advisor, GIS+CS
- 2019–20 Chair, Ad Hoc Committee (GIS+CS Degree)
- 2015–18 Chair, UNT Geography Personnel Assessment Committee
- 2009– Undergraduate GIS Certificate Coordinator
- 2009–15 Member, UNT Geography Personnel Assessment Committee
- 2009– Member, UNT Geography Curriculum Committee
- 2009– Member, UNT Geography Awards/Honors Committee
- 2009– Member, UNT Geography Graduate Admissions Committee
- 2010– Member, Adhoc Committee (Website)
- 2009– Chair, Adhoc Committee (UNT Geography - UNT-HSC Certificate Program in GIS and Health)

SERVICE TO THE DISCIPLINE

- 2019– Treasurer, Applied Geography Conference.
- 2019–20 Chair, Health and Medical Geography Specialty Group, American Association of Geographers.
- 2018–19 Vice Chair, Health and Medical Geography Specialty Group, American Association of Geographers.

- 2017–18 Board Member, Health and Medical Geography Specialty Group, American Association of Geographers.
- 2016– Contributor to various Open-Source GIS and Open Data initiatives.
- 2005– Software Architect & Main Developer, WebDMAP: An Open Source GIS Framework for Creating Disease Maps. <http://www.webdmap.com>.
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