

Curriculum vitae
Varun Goel
111 Callcott, 709 E Bull St
University of South Carolina, Columbia
Email: varungoel@sc.edu

EDUCATION

Ph.D., Geography (<i>health geography</i>) <i>University of North Carolina</i>	2021 <i>Chapel Hill, NC</i>
M.S., Geography (<i>health geography</i>) <i>University of Illinois</i>	2013 <i>Urbana-Champaign, IL</i>
B.A., Geography (<i>honors with highest distinction</i>) <i>University of Illinois</i> Concentration: <i>GIScience</i> Minor: <i>Computer Science</i>	2011 <i>Urbana-Champaign, IL</i>

EMPLOYMENT AND RELEVANT RESEARCH EXPERIENCE

2024-present	Assistant Professor <i>Department of Geography, University of South Carolina, Columbia SC, USA</i>
2021-2024	Postdoctoral Research Associate <i>Carolina Population Center, University of North Carolina Chapel Hill, USA</i>
2016-2021	Pre-doctoral Trainee (Supervised by Dr. Mike Emch) <i>Carolina Population Center, University of North Carolina Chapel Hill, USA</i>
2013-2016	Research Associate, <i>Indian School of Business, Hyderabad, India</i> Chief Data Scientist, <i>Revitalizing Rain-fed Agricultural Network, New Delhi, India</i> (Concurrent position)
2011-2013	Graduate Research Assistant, (Supervised by late Dr. Marilyn O'Hara. Ruiz) <i>Center for One Health, University of Illinois, Urbana-Champaign</i>
2010-2011	Undergraduate Research Assistant (Supervised by Dr. Shaowen Wang) <i>CyberGIS and Infrastructure Laboratory, University of Illinois, Urbana-Champaign</i>

PEER-REVIEWED PUBLICATIONS

(* - joint first authors)

1. Hatuwal B, **Goel V**, Deliberto TJ, Lowe J, Emch M, Webby RJ, Wan XF (2024). Spatial patterns of influenza A virus spread across compartments in commercial swine farms in the United States. *Emerging Microbes & Infection*. <https://doi.org/10.1080/22221751.2024.2400530>
2. Connelly S, Brazeau N, Ngasala B, **Goel, V.**, Jin J, Juliano J. (2024). Strong isolation by distance and evidence of population microstructure reflect ongoing *Plasmodium falciparum* transmission in Zanzibar. *Elife*. <https://doi.org/10.7554/eLife.90173.3>

3. Xu E*, **Goel V***, Baguma E, Ayebare E, Hollingsworth BD, Brown-Marusiak A, Giandomenico D, Reyes R, Ntaro M, Mulogo EM, Boyce RM (2024). Evolution of spatial risk of malaria infection after a pragmatic chemoprevention program in response to severe flooding in rural western Uganda. *Journal of Infectious Diseases*. <https://doi.org/10.1093/infdis/jiad348>
4. Delamater P., **Goel, V.**, Strack C, Yang YT (2024). Provisional entrance, exemptions, and kindergarteners up-to-date on vaccination after a regulatory change in Pennsylvania. *Public Health Reports*. <https://doi.org/10.1177/00333549231156569>
5. Bell, G. J., Gyaase, S., **Goel, V.**, Essone, P., Dosoo, D., Adu, B., Mensah, B. ., Wiru, K., Mougeni, F., Osei, M., Minsoko, P., Sinai, C., Niaré, K., Juliano, J. J., Hudgens, M., Ghansah, A., Kamthunzi, P., Mvalo, T., Agnandji, S. T., Emch, M, Juliano J, Bailey J (2023). Background malaria incidence and parasitemia during the three-dose RTS,S/AS01 vaccination series do not reduce magnitude of antibody response nor efficacy against the first case of malaria. *BMC Infectious Diseases*. <https://doi.org/10.1186/s12879-023-08699-7>
6. Sendor R, Banek K, Mwandagilirwa K, Mvuama N, Bala JA, Nkalani M, Kihuma G, Atibu J, Thwai KL, Svec WM, **Goel V**, Nseka T, Lin JT, Bailey JA, Emch M, Carrel M, Juliano JJ, Tshefu A, Parr JB. (2023). Epidemiology of *Plasmodium malariae* and *Plasmodium ovale* spp in Kinshasa Province, DRC. *Nature Communications* <https://doi.org/10.1038/s41467-023-42190-w>
7. **Goel, V.**, Chan B, Ziade M, , Yunus M, Ali MT, Khan AF, Alam N, Babu S, Kabir MM, Delamater P, Serre M, Sobsey M, Islam M, Emch M (2023). Deep tubewell use is associated with increased household microbial contamination in rural Bangladesh: Results from a prospective cohort study among households in rural Bangladesh. *Environmental Pollution* <https://doi.org/10.1016/j.envpol.2023.121401>
8. Lam, N., **Goel. V.**, Blasdel M., Xu, L., Bond, T (2023). Reduction potentials for particulate emissions from household energy in India. *Environmental Research Letters*. <https://doi.org/10.1088/1748-9326/acc7ba>
9. Bell, G. J., **Goel, V.**, Essone, P., Dosoo, D., Adu, B., Mensah, B. A., Gyaase, S., Wiru, K., Mougeni, F., Osei, M., Minsoko, P., Sinai, C., Niaré, K., Juliano, J. J., Hudgens, M., Ghansah, A., Kamthunzi, P., Mvalo, T., Agnandji, S. T., Emch, M. (2022). Malaria Transmission Intensity Likely Modifies RTS, S/AS01 Efficacy Due to a Rebound Effect in Ghana, Malawi, and Gabon. *The Journal of Infectious Diseases*, *jiac322*. <https://doi.org/10.1093/infdis/jiac322>
10. Bell, G. J., Ncayiyana, J., Sholomon, A., **Goel, V.**, Zuma, K., & Emch, M. (2022). Race, place, and HIV: The legacies of apartheid and racist policy in South Africa. *Social Science & Medicine*, *296*, 114755. <https://doi.org/10.1016/j.socscimed.2022.114755>
11. Boisson, A., **Goel, V.**, Yotebieng, M., Parr, J. B., Fried, B., & Thompson, P. (2022). Implementation Approaches for Introducing and Overcoming Barriers to Hepatitis B Birth-Dose Vaccine in sub-Saharan Africa. *Global Health: Science and Practice*. <https://doi.org/10.9745/GHSP-D-21-00277>
12. Boyce, R. M., Hollingsworth, B. D., Baguma, E., Xu, E., **Goel, V.**, Brown-Marusiak, A., Muhindo, R., Reyes, R., Ntaro, M., Siedner, M. J., Staedke, S. G., Juliano, J. J., & Mulogo, E. M. (2022). Dihydroartemisinin-Piperaquine Chemoprevention and Malaria Incidence After Severe Flooding: Evaluation of a Pragmatic Intervention in Rural Uganda. *Clinical Infectious Diseases*. <https://doi.org/10.1093/cid/ciab781>

13. Brandt*, K., **Goel, V***, Keeler, C*, Bell, G. J., Aiello, A. E., Corbie-Smith, G., Wilson, E., Fleischauer, A., Emch, M., & Boyce, R. M. (2021). SARS-CoV-2 testing in North Carolina: Racial, ethnic, and geographic disparities. *Health & Place*, <https://doi.org/10.1016/j.healthplace.2021.102576> (* - joint first authors)
14. Topazian, H. M., Gumbo, A., Brandt, K., Kayange, M., Smith, J. S., Edwards, J. K., **Goel, V.**, Mvalo, T., Emch, M., Pettifor, A. E., Juliano, J. J., & Hoffman, I. (2021). Effectiveness of a national mass distribution campaign of long-lasting insecticide-treated nets and indoor residual spraying on clinical malaria in Malawi, 2018–2020. *BMJ Global Health*.
15. Carrel, M., Kim, S., Mwandagarirwa, M. K., Mvuama, N., Bala, J. A., Nkalani, M., Kihuma, G., Atibu, J., Diallo, A. O., **Goel, V.**, Thwai, K. L., Juliano, J. J., Emch, M., Tshefu, A., & Parr, J. B. (2021). Individual, household and neighborhood risk factors for malaria in the Democratic Republic of the Congo support new approaches to programmatic intervention. *Health & Place*. <https://doi.org/10.1016/j.healthplace.2021.102581>
16. Cote, C. M., **Goel, V.**, Muhindo, R., Baguma, E., Ntaro, M., Shook-Sa, B. E., Reyes, R., Staedke, S. G., Mulogo, E. M., & Boyce, R. M. (2021). Malaria prevalence and long-lasting insecticidal net use in rural western Uganda: Results of a cross-sectional survey conducted in an area of highly variable malaria transmission intensity. *Malaria Journal*. <https://doi.org/10.1186/s12936-021-03835-7>
17. Deutsch-Feldman, M., Parr, J. B., Keeler, C., Brazeau, N. F., **Goel, V.**, Emch, M., Edwards, J. K., Kashamuka, M., Tshefu, A. K., & Meshnick, S. R. (2020). What is the burden of malaria in the DRC? *The Journal of Infectious Diseases*. <https://doi.org/10.1093/infdis/jiaa650>
18. **Goel, V.**, Bell, G. J., Sridhar, S., Islam, M. S., Yunus, M., Ali, M. T., Khan, M. A., Alam, M. N., Faruque, A. S. G., Kabir, M. M., Babu, S., Brandt, K., Shelus, V., Sobsey, M. D., & Emch, M. (2020). Considering Alternate Pathways of Drinking-Water Contamination: Evidence of Risk Substitution from Arsenic Mitigation Programs in Rural Bangladesh. *International Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph17155372>
19. **Goel, V.**, Islam, M. S., Yunus, M., Ali, M. T., Khan, A. F., Alam, N., Faruque, A. S. G., Bell, G., Sobsey, M., & Emch, M. (2019). Deep tubewell microbial water quality and access in arsenic mitigation programs in rural Bangladesh. *Science of The Total Environment*. <https://doi.org/10.1016/j.scitotenv.2018.12.341>
20. Janko, M., **Goel, V.**, & Emch, M. (2019). Extending multilevel spatial models to include spatially varying coefficients. *Health & Place*. <https://doi.org/10.1016/j.healthplace.2019.102235>
21. Rooney, B., Zhao, R., Wang, Y., Bates, K. H., Pillarisetti, A., Sharma, S., Kundu, S., Bond, T. C., Lam, N. L., Ozaltun, B., Xu, L., **Goel, V.**, Fleming, L. T., Weltman, R., Meinardi, S., Blake, D. R., Nizkorodov, S. A., Edwards, R. D., Yadav, A., Seinfeld, J. H. (2019). Impacts of household sources on air pollution at village and regional scales in India. *Atmospheric Chemistry and Physics*. <https://doi.org/10.5194/acp-19-7719-2019>
22. Watson, O. J., Sumner, K. M., Janko, M., **Goel, V.**, Winskill, P., Slater, H. C., Ghani, A., Meshnick, S. R., & Parr, J. B. (2019). False-negative malaria rapid diagnostic test results and their impact on community-based malaria surveys in sub-Saharan Africa. *BMJ Global Health*. <https://doi.org/10.1136/bmjgh-2019-001582>
23. Mwandagarirwa, M. K., Levitz, L., Thwai, K. L., Parr, J. B., **Goel, V.**, Janko, M., Tshefu, A., Emch, M., Meshnick, S. R., & Carrel, M. (2017). Individual and household characteristics of persons with Plasmodium falciparum malaria in sites with varying endemicities in Kinshasa Province, DRC. *Malaria Journal*. <https://doi.org/10.1186/s12936-017-2110-7>

SELECTED MANUSCRIPTS UNDER REVIEW

1. Emch, M., **Goel, V** (2024). Disease ecology in health and medical geography: History, progress, and innovations. *Singapore Journal of Tropical Geography*
2. **Goel, V**, Ding, J, Hatuwal B, Giri E, Deliberto T, Lowe J, Emch M, Webby R, Wan XF (2024). Ecological Drivers of Evolution of Swine Influenza in the United States: A Review. *Emerging Microbes and Infection*
3. **Goel, V.**, Ziade M, Chan B, Gray C, Delamater P, Yunus M, Sobsey M, Islam M, Emch M (2024). Assessing the Association between Deep Tubewell Use Diarrhea: Results from a Prospective Cohort Study among Households in Rural Bangladesh. *Environmental Health Perspectives*
4. **Goel, V.**, Ziade M, Chan B, Gray C, Delamater P, Yunus M, Sobsey M, Islam M, Emch M (2024). Incorporating Geographic Context in Population Health Interventions: Case Study of Arsenic Mitigation Interventions for Drinking-water in Rural Bangladesh. *Health and Place*.
5. Hendren C., Ndizeye R., Rubenstein R., Baguma E., **Goel, V.** Shook-Sa B., Boyce R. (2024). Distance and Time to Clinic are Associated with HIV Viral Suppression at a Peripheral Health Center in Rural Western Uganda. *Clinical Infectious Diseases*
6. Beach K., **Goel, V.**, Jagger P., Entwisle B. (2024). A Geographic Perspective on the Rise of Charcoal Consumption in Malawi 2004-2020. *World Development*

REFEREED BOOK CHAPTERS

1. **Goel, V**, Emch, M (2021). Spatial Epidemiology: Challenges and Methods in COVID-19 Research. In G. J. Andrews, V. A. Crooks, J. R. Pearce, & J. P. Messina (Eds.), *COVID-19 and Similar Futures: Pandemic Geographies* (pp. 23–29). Springer International Publishing.
https://doi.org/10.1007/978-3-030-70179-6_2

SELECTED CONFERENCE PRESENTATIONS

(*) presenting author, if not given by me

- 2024 **Goel V.** Incorporating Geographic Context in Malaria Vaccine Trials, *International Medical Geography Symposium*, Atlanta, July 14-20
- 2024 **Goel V.** Spatiotemporal Dynamics of Influenza A Viruses among Commercial Swine Farms in Midwestern United States, *Ecology and Evolution of Infectious Diseases Conference*, Palo Alto, California, June 24-26
- 2024 **Goel V**, Juliano JJ, Lin J. Molecular and Sero-epidemiology of Malaria through Reactive Case Detection in Zanzibar, Tanzania, *Multilateral Initiative on Malaria Meeting*, Kigali, Rwanda, April 21 – April 28
- 2023 **Goel V**, Emch M. The Role of Landscape Genetics in the Evolution of Swine Flu in the United States, *Association of American Geographers*, Denver, March 23 – March 28

- 2022 **Goel V**, Emch M. Incorporating Geographic Context in Population Health Interventions: Case Study of Arsenic Mitigation Interventions for drinking-water in Rural Bangladesh, *International Medical Geography Symposium*, Edinburgh, UK, June 19-24
- 2022 **Goel V**, Bell G., Emch M. Evidence of Rebound Malaria: Estimating the Impact of Malaria Transmission Intensity on Reduced Malaria Vaccine Efficacy in Sub-Saharan Africa, *Association of American Geographers*, Virtual, February 26 – March 1
- 2022 Emch M*, **Goel V**, Bell G., Emch M. Landscape Genetics of Pandemic Swine Influenza, *Association of American Geographers*, Virtual, February 26 – March 1
- 2021 Brandt K*, **Goel V.**, Investigating COVID-19 Testing in North Carolina: Racial, Ethnic and Geographic Disparities, *Association of American Geographers*, Virtual, April 7-11
- 2020 **Goel V**, Islam MS, Yunus M, Sobsey M, Emch M. Are Deep Tubewells Safe Drinking Water Sources? Evidence of Risk Substitution from Rural Bangladesh, *UNC Water and Health Conference, Chapel Hill*, October 26-30
- 2019 Diallo O*, Kim S, **Goel V**, Carrel M. Malaria Among Individuals and Communities Across Seasons in Sites with Varying Endemicities in Kinshasa Province, Democratic Republic of the Congo, *American Society for Tropical Medicine and Hygiene*, National Harbor, Maryland Nov 20-24
- 2019 **Goel V**. Measuring spillover effects from a health intervention in Rural Bangladesh. *International Medical Geography Symposium*, Queenstown New Zealand, July 1- 6
- 2019 Hopping D*, **Goel V**, Gray C. Climatic influences on Women’s Health and Mobility in Sub-Saharan Africa. *Population Association of America*, Austin, April 11-13
- 2019 **Goel V**. Risk Substitution through Surface Water Use Among Deep Tubewell users in Rural Bangladesh, *Association of American Geographers*, Washington DC, April 4-7
- 2018 **Goel V**. A Spatially Explicit Risk Assessment of Factors Impacting Drinking Water Quality in Rural Bangladesh [Poster], *American Society for Tropical Medicine and Hygiene*, New Orleans, Oct 28-Nov 1
- 2018 Keeler C*, **Goel V**. Impact of Population Modelling Choices on Epidemiological Estimates: Implications for Integrated Disease Control [Poster], *American Society for Tropical Medicine and Hygiene*, New Orleans, Oct 28-Nov 1
- 2018 **Goel V**, Kandicuppa S, Schmidt K, Hernandez M, Gray C. Does Women’s Empowerment Reduce the Negative Effect of Climate Change on Child Health? Empirical Evidence from Households in India, *Population Association of America*, Denver, April 26-28
- 2018 **Goel V**. Finding Safe Drinking Water in Rural Bangladesh - Are Deep Tubewells the Answer? *Association of American Geographers*, New Orleans, April 10-14
- 2018 Sumner K*, **Goel V**, Meshnick S. Malaria Diagnosis – Mapping Discordances between Microscopy and Rapid Diagnostic Tests [Poster], *American Society for Tropical Medicine and Hygiene*, Baltimore, November 5-9

- 2017 Ncayiyana J*, **Goel V**, Escamilla V, Emch M. Spatial-temporal analysis of mycobacterial load among primary health care facilities in Eastern Cape province, South Africa, *Union World Conference on Lung Health*, Guadalajara, Mexico, October 11-14
- 2017 **Goel V**. Finding Safe Drinking Water to Mitigate Arsenic Contamination in Bangladesh, *Association of American Geographers*, Boston, April 5-9
- 2013 **Goel V**. An integrated One Health approach to evaluating the spatio-temporal risk of hemorrhagic disease in cattle in Illinois, *URISA GIS and Public Health Conference*, Miami, June 10-12
- 2013 **Goel V**. A spatial risk assessment of hemorrhagic disease in cattle in Illinois 2005-11 *Association of American Geographers*, Los Angeles, April 22-25
- 2011 **Goel V.**, Banion N., Shook E. IMAP: An online GIS tool for disability-friendly pedestrian navigation, Illinois GIS Association Spring Conference, Champaign IL, April 13

INVITED GUEST LECTURES & PANELS

- 2024 Incorporating ‘Spatial’ in Infectious Disease Epidemiology (EPID 755: Advanced Infectious Disease Epidemiology), *University of North Carolina, Chapel Hill*
- 2023 Ecology and Evolution of Infectious Diseases (session head and organizer) *Association of American Geographers, Denver, March 23 – March 28*
- 2022 Maps, GIS, and Spatial Analysis in Public Health (*GEOG 222: Health and Medical Geography Guest Lecture*), *University of North Carolina, Chapel Hill*
- 2022 Are Deep Tubewells Safe and Equitable ? (co-presented with Mike Emch) *International Population Science and Research Seminar, Mahidol University, Thailand*
- 2022 Incorporating Geospatial Analysis and GIS in Global Health (*ES 216: Environmental GIS Guest Lecture*) *Indian Institute of Technology, Bombay, India*
- 2022 Globalization and Health (GEOG 110: Geographies of Globalization, Guest Lecture), *University of North Carolina, Chapel Hill*
- 2020 Spatial and demographic patterns in SARS-CoV-2 testing and test positivity in North Carolina, *Dartmouth College, Nov 10* (co-presented with Mike Emch and Kate Brandt)
- 2020 SARS-CoV-2 Testing in North Carolina: Racial, ethnic, and geographic disparities, *NC Covid Surveillance Network, Oct 26* (co-presented with Cory Keeler and Kate Brandt)
- 2020 Building Resilience in Water, Sanitation and Hygiene Systems in Developing Countries, *George Mason University STAR-TIDES WaSH panelist, Oct 20*
- 2020 Spatial Components of COVID-19 viral and seroprevalence testing in North Carolina, *NC State University, Oct 19* (co-presented with Mike Emch and Kate Brandt)
- 2018 Examining the role of neighbourhood definitions on spatio-temporal evolution of vaccine refusal in California GIS Day, *Duke University, Nov 16*

- 2018 Evaluating Deep Tubewell interventions in rural Bangladesh: Implications for both drinking and non- drinking water usage, *International Center for Diarrheal Disease Research (icDDR,b), Dhaka, Bangladesh*, September 25
- 2018 Mapping Infectious Diseases using R: Hands-on workshop at the Evolutionary Medicine Summer Institute (EMSI) at *Duke University*, June 7
- 2017 Globalization and Health, undergraduate course on Geographies of Globalization, *University of North Carolina, Chapel Hill NC*, October 13
- 2017 Morbidity and Health, undergraduate course on Population Problems and Development, *University of North Carolina, Chapel Hill NC*, March 28
- 2013 Applications of GIS in Natural Resource Management, undergraduate global study seminar on Understanding Natural Resource Governance in Developing Countries, *University of Illinois, Urbana Champaign IL*, October 29
- 2012 Incorporating open-source GIS tools in crime and health applications, undergraduate course on Geospatial Tech and Society, *University of Illinois, Urbana Champaign IL*
- 2012 Using Google Fusion Tables in the classroom, Teaching with technology brown bag series, *University of Illinois, Urbana Champaign IL*

EXTERNAL FUNDING

Active

1. Postdoctoral Lead - NIH 1R01AI155730: *Importation and transmission of malaria in Zanzibar* (PI: Jonathan Juliano, \$2,062,025, 2021-25)
2. Postdoctoral Lead - NSF 2200047: *PIPP Phase 1: Modeling the Pandemic Lifecycle for Disease Control* (PI: Charles Nunn, \$1,000,000, 2022-24)
3. Postdoctoral Lead - NSF DEB-2109745: *Comparative Evolution and Ecology of Swine Influenza in the US and China* (PI: XiuFeng Wan, \$1,999,992, 2021-26)

Pending

4. Co-Principal Investigator – Bill and Melinda Gates Foundation: *Embedding a Hub within the Tanzanian Meteorological Agency for Climate-Driven Modeling to Inform Malaria Control in East Africa* (\$1,200,000, 2023-2026)
5. Co-Investigator – NSF EEID: *Using Deep Learning Surrogates to Predict Spread of Malaria Drug Resistance across Sub-Saharan Africa* (PI: Jonathan Juliano, \$1,320,000, 2023-27)

Completed

6. Postdoctoral Lead - NIAID 1R01AI137450: Impacts of Environment, Host Genetics and Antigenic Diversity on Malaria Vaccine Efficacy (PI: Michael Emch, \$3,632,092, 2018-24)
7. Lead Graduate Researcher – NSF BCS-1560970: Finding Safe Drinking Water to Mitigate Arsenic Contamination in Rural Bangladesh (PI: Michael Emch, \$419, 999, 2016-21)

HONORS, AWARDS, & SCHOLARSHIPS

- 2020 UNC Graduate School Dissertation Completion Fellowship (\$18,000)
Melinda Meade Research Award, UNC Geography (\$3000)
- 2019 Melinda Meade Graduate Student Summer Award, UNC Geography (\$2000)
AAG Health and Medical Geography Specialty Group Travel Award (\$500)
UNC Graduate School Transportation Grant (\$1000)
Ona Impact Grant for using innovative digital technology for field data collection (\$1200)
- 2018 Geography Summer Award, UNC Geography (\$3000)
Summer Institute in Statistics and Infectious Disease Modeling scholarship, UW (\$3300)
Ona Impact Grant for using innovative digital technology for field data collection (\$1200)
- 2016 UNC Doctoral Recruitment Merit Assistantship (\$20,000)
Predoctoral Traineeship, Carolina Population Center, Chapel Hill (2016-2021)
- 2013 List of Teaching Assistants Ranked as Outstanding
UIUC Conference Travel Awards (2), UIUC Geography (\$600)
Schlesinger Travel Award, UIUC School of Earth, Society and Environment (\$600)
- 2011 Jerome D Fellman Award, for superior honors thesis and highest distinction UIUC
ESRI Development Center (EDC) Scholarship, ESRI (co- shared)(\$500)
1867 Society Fund Award, UIUC (shared) (\$1100)
- 2010 Howard Roepke Research Scholarship, UIUC Geography (\$3000)

UNIVERSITY TEACHING EXPERIENCE

Instructor (University of North Carolina)

- 2020 Spring [GEOG 215: Introduction to Spatial Data Science](#)
(Rated 4.85 out of 5)

Teaching Assistant (University of Illinois)

- 2011 fall GEOG 101: Geography of Developing Countries
2013 spring GEOG 105: The Digital Earth
(List of TAs rated as Outstanding)

Graduate Research Consultant (University of North Carolina)

2018 fall GEOG 437: Social Vulnerability to Climate Change
 2017 spring & fall STOR 320: Introduction to Data Science

OTHER RELEVANT TEACHING EXPERIENCE

2020 Course Instructor – Introduction to GIS and Spatial Analysis
 Malawi HIV Implementation and Research Training Program, UNC Project, Malawi

2020 Teaching Assistant – Data Matters Workshop Series (Intermediate and Advanced R)
 University of North Carolina, Chapel Hill

2018 Workshop Instructor: Mapping Infectious Diseases using R
 Evolutionary Medicine Summer Institute (EMSI) at *Duke University*, June 7

SKILLS

Analytical

GIS, remote sensing, spatial statistics, geostatistical modelling, disease modelling

Programming

R (advanced), Python (intermediate), Matlab, Bash

Softwares/Tools

R, ArcGIS, QGIS, Stata, GIT, PostGIS, ENVI, Google Earth Engine

DEPARTMENTAL/UNIVERSITY SERVICE

2017-2020 Treasurer, Geography Association of Graduate Students
 University of North Carolina Chapel Hill

2016 Senator, Graduate Professional Student Federation
 University of North Carolina Chapel Hill

2013 Co-chair, Society of Earth Systems and Environment (SESE) Research Review
 University of Illinois, Urbana Champaign

INVITED MANUSCRIPT REVIEWER ASSIGNMENTS

*Health & Place, Social Science and Medicine, Malaria Journal, Bulletin of the World Health Organization
 Science of the Total Environment, American Journal of Public Health, PLOS Water, BMJ Global Health
 Journal of Infectious Diseases, BMC Infectious Diseases, BMC Public Health, BMJ Open*

MEMBERSHIP IN PROFESSIONAL SOCIETIES

*Association of American Geographers (2011-2013, 2016 – present)
 Population Association of America (2016 – present)
 American Society of Tropical Medicine and Hygiene (2017 – present)*