

E: s.m.labib@uu.nl / sml80@cam.ac.uk W: www.smlabib.com / www.uu.nl/staff/SMLabib/
Department of Human Geography & Spatial Planning, Utrecht University.

About

I am urban health geographer investigating the impacts of urban built/natural environments on public health considering social and spatial inequalities. Most of my work is focused on understanding human-environment interactions through collaborative, inter-disciplinary research with strong geographical information science (GIS) and data science dimensions. I am a teacher of GIS, health geography, spatial data science, urban and econometric analysis. I am also a 'Associate Fellow' of the Higher Education Academy in the UK.

Area of Expertise

- Health & Medical Geography
- Transportation
- Nature-based Solutions
- Spatial Data Science
- GIS
- Urban Data analytics

Education

September, 2017- September, 2020	PhD in Geography <i>The University of Manchester</i> Dissertation Title: Multiscale exposure to Urban Greenspace: A Spatially explicit approach. (Supervisors: Prof. Sarah Lindley, and Dr. Jonny Huck)
August, 2017	Data Science and Big Data Analytics <i>London School of Economics – LSE Methods Summer School</i>
2016-2017	MSc. Geographical Information Science <i>The University of Manchester</i> Result: Distinction (Average: 78.87%, <i>Best student of the cohort</i>)
2009-2014	Bachelor of Urban and Regional Planning <i>Bangladesh University of Engineering and Technology (BUET)</i> Result: CGPA 3.86 out of 4.00 (Merit position 2 nd)

Academic Appointments and Research experience

October, 2021- Continuing	Assistant Professor of Spatial Data Science and Environmental Health (Tenure track) Organisation: Department of Human Geography and Spatial Planning, Utrecht University
September, 2020- Continuing (as visiting scholar up to 2023)	Research Associate and Co-investigator (CO-I) Organisation: CEDAR, MRC Epidemiology Unit, University of Cambridge. <i>Public health Modelling Group</i> . Working in "Joining Impact models of transport to spatial measures of the Built Environment" (JIBE: https://jibeproject.com/) and "METAHIT" projects (PI: Prof. James Woodcock and Co-PI: Prof. Billie Giles-Corti) Responsibilities: <ul style="list-style-type: none"> ▪ Developing spatial indicators of built environment UK city regions (JIBE, WP2) ▪ Developing & maintaining Git-repos/ package for transport and health impact modelling ▪ Analysing spatial data for air pollution impact on health (METAHIT, WP2) ▪ Managing a postdoctoral research assistant

June, 2021-
Continuing

Affiliated Researcher

Organisation: Virtual Reality and Nature Lab, Clemson Institute for Park, Clemson University (*Lab Head- Dr Matthew Browning*)

Responsibilities:

- Contributing in new project development for VRN-lab
- Conducting studies on nature and health using **virtual reality & spatial analytics**

November, 2017-
December, 2018
(Part time)

Research Associate (GIS Specialties- lead)

Organisation: SEED, University of Manchester. Part of *RESIN - Climate Resilient Cities and Infrastructures*, Horizon 2020 program (*PI: Dr. Jeremy Carter*)

Responsibilities:

- Managing **climate change modelled outputs** in spatial database
- **Spatial modelling** for assessment of climate risk of **transport network**
- **Co-authored policy report** for RESIN

September 2014-
December 2014

Research Assistant

Organisation: Department of Urban and Regional Planning (DURP), Bangladesh University of Engineering and Technology (BUET).

Responsibilities:

- Assisted in **designing a questionnaire** for accessing travel modes and locational preferences of university students for the new campus
- Assisted in writing **traffic and social impact** assessment reports

Publications, Invited talks, and Software Package

Published Journal Articles (Google Scholar: 521 citations, as of 15 September; H-index: 11; i10-index: 13)

[15] **Labib**, S.M., Browning, M.H., Rigolon, A., Helbich, M., and James, P., 2022. Nature's contributions in coping with a pandemic in the 21st century: A narrative review of evidence during COVID-19. *Science of The Total Environment*, p.155095. DOI: <https://doi.org/10.1016/j.scitotenv.2022.155095> - Impact factor: 10.75, Citation count: 22

[14] Larson, L. R., Mullenbach, L. E., Browning, M. H., Rigolon, A., Thomsen, W. J., Covelli, M. W. E., ... **Labib**, S. M. 2021. Greenspace and park use associated with less emotional distress among college students in the United States during the COVID-19 pandemic. *Environmental research*, p.112367. DOI: <https://doi.org/10.1016/j.envres.2021.112367> [US collaboration] - Impact factor: 8.43, Citation count: 23

[13] Shuvo, F.K., Mazumdar, S. M., **Labib**, S.M., 2021. Walkability and greenness do not walk together: investigating associations between greenness and walkability in a large metropolitan city context. *International journal of environmental research and public health*, 18(9), p.4429. DOI: [10.3390/ijerph18094429](https://doi.org/10.3390/ijerph18094429) [**Cover Story**, Volume 18, Issue 9]- Impact factor: 4.61, Citation count: 10

[12] **Labib**, S.M., Lindley, S. and Huck, J.J., 2021b. Estimating multiple greenspace exposure types and their associations with neighbourhood premature mortality: A socioecological study. *Science of The Total Environment*, 789, p.147919. DOI: [10.1016/j.scitotenv.2021.147919](https://doi.org/10.1016/j.scitotenv.2021.147919) [**PhD 4th Paper**]- Impact factor: 10.75, Citation count: 7

[11] **Labib**, S.M., Huck, J.J., and Lindley, S., 2021a. Modelling and mapping eye-level greenness visibility exposure using multisource data at high spatial resolutions. *Journal: Science of the total environment*, 755, p.143050. DOI: [10.1016/j.scitotenv.2020.143050](https://doi.org/10.1016/j.scitotenv.2020.143050) [**PhD 3rd Paper**]-Impact factor: 10.75, Citation count: 27

- [10] Labib, S.M., Lindley, S. and Huck, J.J., (2020)b. Scale effects in remotely sensed greenspace metrics and how to mitigate them for environmental health exposure assessment. *Computers, Environment and Urban systems*, 82, p.101501. DOI: [10.1016/j.compenurbsys.2020.101501](https://doi.org/10.1016/j.compenurbsys.2020.101501) [PhD 2nd Paper] [Among the **highest altmetric score papers**]- Impact factor: 6.45, Citation count: 32
- [9] Labib, S.M., Lindley, S. and Huck, J.J., (2020)a. Spatial Dimensions of the Influence of Urban Green-Blue Spaces on Human Health: A Systematic Review. *Environmental research*, 180, p.108869. DOI: [10.1016/j.envres.2019.108869](https://doi.org/10.1016/j.envres.2019.108869) [PhD 1st Paper, Highly cited, top 1% paper in Web of Science] - Impact factor: 8.43, Citation count: 150
- [8] Labib, S.M., Shuvo, F.K., Browning, M.H. and Rigolon, A., (2020)c. Noncommunicable Diseases, Park Prescriptions, and Urban Green Space Use Patterns in a Global South Context: The Case of Dhaka, Bangladesh. *International Journal of Environmental Research and Public Health*, 17(11), p.3900. DOI: <https://doi.org/10.3390/ijerph17113900> - Impact factor: 4.61, Citation count: 7
- [7] Labib, S. M. (2019). Investigation of the likelihood of green infrastructure enhancement along linear waterways or on derelict sites using machine learning. *Environmental Modelling & Software*, 118, 146-165. DOI: [10.1016/j.envsoft.2019.05.006](https://doi.org/10.1016/j.envsoft.2019.05.006) - Impact factor: 5.47, Citation count: 15
- [6] Labib et al., (2019)a. Integrating Data Mining and Microsimulation Modelling to Reduce Traffic Congestion: A Case Study of Signalized Intersections in Dhaka, Bangladesh. *Urban Science*, 3(2), p.41. DOI: [10.3390/urbansci3020041](https://doi.org/10.3390/urbansci3020041) - Impact factor: NA, Citation count: 9
- [5] Labib, et al., (2018)a. Carbon Dioxide Emission and Bio-capacity indexing for transportation activities. *Journal of environmental management*, 223, pp.57-73. DOI: [10.1016/j.jenvman.2018.06.010](https://doi.org/10.1016/j.jenvman.2018.06.010) - Impact factor: 8.91, Citation count: 39
- [4] Labib S.M. and Harris, A., (2018). The potentials of Sentinel-2 and LandSat-8 data in Green Infrastructure extraction, using Object-Based Image Analysis (OBIA) method. *European Journal of Remote Sensing*, 51(1), pp.231-240. DOI: [10.1080/22797254.2017.1419441](https://doi.org/10.1080/22797254.2017.1419441) - Impact factor: 3.61, Citation count: 60
- [3] Shakil, S., Labib, S.M. and Khan, M., (2016). Stakeholder Debate in Policy Implementation: An Evaluation of Bangladesh Leather Processing Industry Relocation Policy. *Bangladesh e-Journal of Sociology*, 13(1), pp.126-137. Impact factor: NA, Citation count: 3
- [2] Labib, SM, Mohiuddin, H., & Shakil, SH (2013). Transport Sustainability of Dhaka: A Measure of Ecological Footprint and Means for Sustainable Transportation System. *Journal of Bangladesh Institute of Planners* 6 (2014): 137-147. Impact factor: NA, Citation count: 31
- [1] Labib, S. M., Bhuiya, M. M. R., & Rahaman, M. Z. (2013). Location and size preference for apartments in Dhaka and prospect of real estate market. *Bangladesh Research Publications Journal*, 9(2), 87-96. Impact factor: NA, Citation count: 32
- [15] Labib, S.M, Itova, Irena, Staves, Corin, ..., Giles-Corti, Billie, & Woodcock, James. (2022). Integrating spatially detailed micro-environmental attributes to a routable transport network for active travel modeling: A pilot study in Greater Manchester. *30th Annual Geographical Information Science Research UK (GISRUK)*, Liverpool, United Kingdom. <https://doi.org/10.5281/zenodo.6411627>
- [14] Staves, Corin, Labib, S.M, Itova, Irena, ..., Giles-Corti, Billie, & Woodcock, James. (2022). Exploring walking and cycling accessibility using network-based built environment indicators of safety, comfort, and attractiveness. *Urban Transitions*, Sitges, Barcelona, Spain

**Conferences
Presentation and
papers (Selected)**

- [13] Itova, Irena, Staves, Corin, **Labib**, S.M, ..., Giles-Corti, Billie, & Woodcock, James. (2022). Association between built environment attributes and travel times for active travel observed among Strava users. *Urban Transitions*, Sitges, Barcelona, Spain
- [12] Gudes, Ori, Kamruzzaman, Liton, Itova, Irena, Gunn, Lucy, **Labib**, S.M, ..., Giles-Corti, Billie, & Woodcock, James. (2022). Area-based vs. route-based indicators of the built environment: what explains active transport behaviour better? *Urban Transitions*, Sitges, Barcelona, Spain
- [11] **Labib** S.M., Lindley, S. Huck, J.J. (2021). Novel spatial approaches to modelling and mapping composite greenspace exposure at high resolutions and multiple scales. At *Nature & Health Virtual Conference (October 12 - 14, 2021)*, University of Washington, USA.
- [10] **Labib** S.M. (2020). Does Green and Blue Space Visibility Improve Human Health and Wellbeing? A Systematic Review. In *32 Conference of the International Society for Environmental Epidemiology*, Virtual.
- [9] **Labib** S.M., Huck, J.J and Lindley, S. (2020)d. Greenness visibility using viewshed analysis: A pilot study in Manchester. In *Proceedings of the 28th Annual GIScience Research UK (GISRUK 2020)*, London, United Kingdom.
- [8] **Labib**, S.M., Rahman, M.S., Ahmed, B. (2019). Social Media Analytics in understanding the Rohingya crisis: An exploration of public sentiment and geo-political responses. IRDR, University College London, London, UK.
- [7] Connelly, A., Ellis, M., Carter, J., and **Labib**, S.M. (2018). Assessing climate risk in Greater Manchester (UK) and prioritising adaptation options: a step by step approach. *Resilient cities 2018*, Bonn, Germany. [RESIN project collaboration]
- [6] **Labib**, et al., (2018). Environmental Cost of Refugee Crisis: Case Study of Kutupalong Balukhali Rohingya Camp Site a Remote Sensing Approach. In *Proceedings of the 26th Annual GISRUK, 2018*, Leicester, United Kingdom.
- [5] **Labib**, S.M., Siddiqueeb, M.Z., Khondokerc, M.S.I. and Sayfullahd, M., 2018. Exploring the Potentials of UAV Based Geo-Spatial Data Acquisition in Urban Environment: A Case study in Dhaka City, Bangladesh. *AGSE 2017*, p.69.
- [4] **Labib**, S. M. (2017). Volunteer GIS (VGIS) based waste management: A conceptual design and use of web 2.0 for smart waste management in Dhaka City. In *2017 Third International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN)* (pp. 137-141). India. IEEE.
- [3] **Labib**, et al. (2017). Participatory Vulnerability Mapping: A case study on community based disaster management. In *Proceedings of 25th GISRUK*, Manchester, United Kingdom.
- [2] Hira, S., & **Labib**, S. M. (2017). Conceptual study of Web-based PPGIS for Designing Built Environment: Identifying Housing Location Preferences in Littleborough. *Proceedings of 25th GIS Research UK (GISRUK)*, Manchester, United Kingdom.
- [1] **Labib**, S.M., Rahaman, Z. and Patwary, M.S.H., 2016. Comprehensive evaluation of urban public Non-Motorized Transportation Facility services in Dhaka. *The 8th MAC 2016*, p.124. Prague, Czech Republic.
- [4] Martinez, A.D.I., and **Labib**, S.M. 2022. Demystifying Normalized Difference Vegetation Index (NDVI) for Greenness Exposure Assessments and Policy Interventions in Urban Greening. Under Review Journal: *Environmental research*. [student paper]
- [3] Li, H., Browning, M.H., Rigolon, A., Larson, L.R., Taff, D., **Labib**, S.M., Benfield, J., Yuan, S., McAnirlin, O., Hatami, N. and Kahn Jr, P.H., 2022. Beyond" bluespace" and" greenspace": A narrative review of possible health benefits from exposure to other

Under review
papers

natural landscapes. Under Review Journal: *Science of The Total Environment* [collaborative paper with VRN lab and USA collages]

[2] Ashik, F.R., Rahman, M.H., Zafri, N.M., **Labib**, S.M. 2022. Exploring the impact of built environment on sustainable travel behavior in a mega city context: a data driven machine learning approach. Under Review Journal: *Transportation* [student paper]

[1] Maulida, R., Goel, R., **Labib**, S.M., Oni, T., Van Sluijs, E.M., 2022. Environmental correlates of adolescent active travel to school in Asia: an ecological study. Under Review Journal: *Health and Place* [collaborative paper with MRC epidemiology unit]

Working papers

[5] **Labib**, S.M., Lindley, S. and Huck, J.J.. Nonlinear and local associations of urban greenness exposures and neighborhood level years of potential life lost. Target Journal: *Landscape and Urban Planning* [accepted for Urban transition conference presentation]

[4] Barona, C. O., **Labib**, S.M., Chung, L. & Conway, T. M.,. People's Satisfaction With Urban Trees Is Associated With Urban Tree Abundance Around A Person's Home: A Great Toronto Case Study. Target Journal: *npj Urban Sustainability* [UofT collaboration]

[3] Xu, Qiuyi, Browning, M.H., Helbich, M., **Labib**, S.M. 2022. Modeling Spatial Accessibility To Urban Green Spaces: A Worldwide Study. Target Journal: *Urban Forestry and Urban Greening* [student paper]

[2] **Labib**, S.M., De Nazelle, A., Goodman, A., Zapata-Diomedes, B., Oxley, T., and Woodcock, J. Developing air pollution impact factor for large scale health impact assessment of NO₂ and PM_{2.5} in UK City regions. Target Journal: *Environmental Pollution/ Environment International*

[1] Carter, J., and **Labib**, S.M. *Climate change effects on urban vegetation and ecosystem functions- AR5 approach in risk assessment for urban Green infrastructure*. Target Journal: *Landscape and Urban planning* [RESIN project collaboration]

Technical & Consultancy reports (Selected)

[3] Carter, J., Connelly, A., and **Labib**, S.M. (2019). *Assessing and responding to flood risk: a study of Greater Manchester's transport infrastructure*. RESIN – Climate Resilient Cities and Infrastructures report. [RESIN project collaboration]

[2] Ngigi, W., Bahrami, N., and **Labib**, S.M. (2019). *The Potential Impact of Lawtech on Legal Services Consumer Purchase Decisions: Integrating artificial intelligence modelling in customer analysis*. [Business Report]

[1] URP, BUET. (2015). *Report on Integrated WASH planning for local unions*.

Invited talks/Guest Lectures

[5] **Labib**, S. M. (12 September, 2022). Spatial data and methods for transportation studies. Hosted by Dr Fariya Sharmeen, *KTH Royal Institute of Technology*.

[4] **Labib**, S. M. (2 September, 2021). Modelling complex urban greenspace exposure using spatial methods and technologies. Interview for Environmental Epidemiology course by Dr Laura Corlin, *Tufts University*.

[3] **Labib**, S. M. (26 February, 2021). Applications of Spatial and Data Science Approaches in Transportation Studies. Institute of Transportation Studies, *University of California, Irvine*. Talk link: <https://youtu.be/3Kr9wYgwBmE>

[2] **Labib**, S. M. (17 November, 2020). Combined Multiscale exposure to urban greenspace. Spatial & Contextual Exposomics, Epidemiology Laboratory, Harvard T.H. Chan School of Public Health, *Harvard University*. Slides at: <https://bit.ly/38CG6WA>

[1] **Labib**, S. M. (20 Feb, 2020). Applications of Geospatial data and methods in environmental epidemiology. MRC Epidemiology unit, *University of Cambridge*. Slides at: <https://bit.ly/3oPMH5B>

R-Package

Brinkmann, T.S., and **Labib, S.M.** (2021). *GVI: Greenness Visibility Index R package*.
GitHub: <https://github.com/STBrinkmann/GVI> (Co-authored the package in collaboration with researcher from University of Erlangen-Nuremberg, Germany).

Teaching Experience

October, 2021 -
Continuing

Assistant Professor; Utrecht University.

- GEO2-3317 **Geographies of Health** (coordinator and lead professor, undergraduate course, 62 students)
- GEO3-3024 Advanced GIS (Co-teaching, undergraduate course, 40 students)
- **Geo-AnVis** (Geographic Analysis and Visualization)- National GI minor (co-teaching with faculties from Vrije Universiteit Amsterdam, 34 students)
- GEO1-3636 **Quantitative Urban & Economic Analytics** (coordinator and lead professor, Research MSc in Human and economic geography, 12 students)
- GEO4-GIMA2 Basic Geo-information Application Project (MSc in Geographical Information Management and Applications, managing 12 students)
- INFOMSSML-**Spatial Statistics and Machine learning** course for MSc in Applied Data Science (Co-teaching the machine learning section, 70 students)
- GEO4-3921 Methods and Techniques Specialization (GIS-Human Geography MSc, 10 students)
- Responsible Conduct of Research (RCR)- training for PhDs the Faculty of Geosciences (48 students)

February, 2018-
July, 2020

Demonstrator; SEED, University of Manchester.

- GEOG20502 **Spatial Thinking with GIS** (undergraduate course, 43 students)
- GEOG20381 **Remote Sensing in Action** (undergraduate course, 24 students)
- GEOG60951 GIS & Environmental Applications (MSc, 30 students)

February, 2019-
July, 2019 (Teaching
Assistant)

Dissertation and skills coaching; SEED, University of Manchester.

- Level 7, MSc dissertation support module (GEOG60662 Dissertation Support)
- Level 2, Skill for Geographers module (GEOG20621 Skills for Geographers)

February, 2018-
July, 2018 (Teaching
Assistant)

Tutor; SEED, University of Manchester.

- Delivering tutorial sessions for undergraduate (Level 2) courses in Geography.
- Prepare tutorial materials, delivery of the session, and grade assignments.

Student Supervision and Mentorship Experience

**Master Student
Supervision**

1. Bert.E. Breekveldt; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.
2. Alex de la Iglesia Martinez; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.
3. Marta Małgorzata Kozłowska; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.
4. Jiawei Zhao; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.
5. Thomas Mernagh; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.
6. Qiuyi Xu; (Master of Applied Data Science, 2022; Role: Main supervisor), Utrecht University.

7. Gijs Boerrigter; (Research Master in Human Geography, Continuing; Role: Main supervisor), Utrecht University.
8. Youri Wesseldijk; (Research Master in Human Geography, Continuing; Role: Main supervisor), Utrecht University.

Undergraduate Student Supervision

1. Eline Hulsker (Undergraduate in Human Geography and spatial planning, 2022; Role: Main supervisor), Utrecht University.

PhDs (mentoring data analysis and software training)

1. Corin Staves, PhD student in Public Health Modelling, MRC Epidemiology Unit, University of Cambridge [Activity working in JIBE project wp2]
2. Rizka Maulida, PhD student in Behavioural Epidemiology and Interventions in Young People, MRC Epidemiology Unit, University of Cambridge

PostDoc Support

1. Irena Itova, PhD, Research Associate in Public Health Modelling Group, MRC Epidemiology Unit, University of Cambridge [JIBE project wp2]
2. Xiaodong Guan, PhD, Post-doctoral Researcher in Urban Geography, Utrecht University. [Collaborating in COCOMO project]

Grants

Funded

[3] Artificial Intelligence & Geosciences (Project: An image tells more than a thousand words: Mapping place perception through street view data). *Funder: Utrecht University, Dean's Policy Resources. 2022-2024*
 Role: Co- Principal Investigator
 Budget: €121,000

[2] REKKE: Resilienz durch Kulturlandschaft im Klimawandel (Climate Change and Health). *Funder: Bavarian State Office for Health and Food Safety. 2022-2024*
 Role: External Co-Investigator in Friedrich-Alexander-Universität Erlangen-Nürnberg
 Budget: Not applicable

[1] School of Environment, Education and Development Postgraduate Research Fund for PhD. *Funder: The University of Manchester.*
 Role: Research Student Applicant
 Budget: £102,000 (approx.)

Under Review

[4] Unified understanding of the nexus among nature contact, pro-environmental behavior, and wellbeing among university students. *Potential Funder: NWO Talent Programme.*

Role: Principal-Investigator
 Budget: €280,000

[3] DALTONS: A sustainable learning system for the evaluation and refinement of area-based interventions in the living environment to promote health and wellbeing. *Potential Funder: NWO.*

Role: Co-Investigator (Intervention Evaluator)
 Budget Share: €150,000 (out of 2 million)

[2] Toolbox for healthy area design – Pathways to Thriving Cities. *Potential Funder: Utrecht University, Pathways to Sustainability Signature project.*

Role: Co-Investigator
 Budget Share: €50,000 (out of €150,000)

[1] Methods for assessing health-related costs of environmental stressors. *Potential Funder: Horizon Europe Framework Programme (HORIZON), European Commission.*

Role: Co-Investigator (Work package lead for geospatial science)
 Budget Share: €760,000 (out of 6 million)

Awards

September, 2020	Associate Fellow (AFHEA) , Fellowship reference (PR201100) <i>Advance HE</i> . Value: Certification for teaching at UK higher education institutions
July, 2020	Award for the best Paper on Spatial Analysis at the GISRUK Conference in memory of Sinesio Alves; <i>CASA (University College London)</i> Value: £150
June, 2020	ISEE 2020 Conference travel award . International Society for Environmental Epidemiology (ISEE) Value: \$190 (Conference registration)
October, 2017- September, 2020	School of Environment, Education and Development Postgraduate Research Scholarship . <i>The University of Manchester</i> . Value: £102,000 (approx.)
December, 2017	Best Student of MSc in GIS . <i>SEED, The University of Manchester</i> . Value: £100 & Certification
October, 2016- September, 2017	Equity and Merit Scholarship . <i>The University of Manchester</i> . Value: £32,000 (approx.)
July, 2014	Abdul Hamid Award (for best undergraduate thesis) and Dean's award . <i>Bangladesh University of Engineering and technology</i> . Value: £250 (approx.)

Additional Relevant Experience

July 2019- August 2019 (Part-time project)	Business Collaboratories for Early Career Researchers (Knowledge Transfer Partnerships Programme) Organisation: <i>The University of Manchester, and ESRC</i> . <ul style="list-style-type: none">▪ Consultancy services on artificial intelligence & spatial data science
February 2016-June 2016	Junior GIS Analyst Organisation: <i>Institute of Water Modelling (IWM), Dhaka, Bangladesh</i> . <ul style="list-style-type: none">▪ Spatial analysis for hydrological models for irrigation projects▪ Creation of new data using satellite images and survey data
April 2015- January 2016	Urban Planner Organisation: <i>Department of Urban and Regional Planning (DURP)</i> <ul style="list-style-type: none">▪ Collecting data through primary survey and focus group discussions▪ Stakeholder meetings arrangement at the district level▪ Preparing WASH planning report for sub-district local authorities

Relevant Professional Training

May 2019	Name: Social Media Data Analysis Organization: Cathie Marsh Institute for Social Research
September 2013 – November 2013	Name: Training on Remote Sensing Organization: Bangladesh Institute of Planners (BIP)
September 2012	Name: Training Course on TransCAD & Trans-modeler Organisation: Department of Urban and Regional Planning, BUET

External Engagements

June-July 2021	Black Internship Programme; Organisation: Health Data Research, UK <ul style="list-style-type: none">• Mentoring a female intern with the public health modelling group
October 2020	Professional Development workshop for the Department for Transport; Organisation: Centre for Science and Policy, University of Cambridge
July 2018- Sep 2018	Volunteering for Tree Surveying; Organisation: City of Trees

Reviewer

I frequently review manuscripts for **multi-disciplinary and specialised** journals including: International Journal of Health Geographics, Science of the total environment, Journal of Environmental Management, International Journal of Environmental Science and Technology, Health and place, International Journal of Environmental Research and Public Health, Landscape and urban planning, Environment International, Urban Climate, Progress in Physical Geography, Scientific Reports, Sustainable Cities and Society, SAGE Open, Sustainability, and ISPRS International Journal of Geo-Information. **(Total 64 completed reviews)**

Skills & Tools

Programming	<ul style="list-style-type: none">▪ R (e.g., sf, rgdal, rgeos, tmap, spatialreg)- Advanced▪ Python (e.g., rasterio, Fiona, panda)- Advanced▪ JavaScript (e.g., leaflet)- Intermediate
GIS Software	<ul style="list-style-type: none">▪ ArcGIS 10.x/pro, - Advanced▪ QGIS- Advanced
Remote sensing	<ul style="list-style-type: none">▪ Google Earth Engine, - Advanced▪ ENVI, - Advanced▪ eCognition, - Intermediate
Databases	<ul style="list-style-type: none">▪ PostgreSQL, - Advanced▪ MySQL, - Intermediate▪ ArcGIS server- Advanced
Data visualization	<ul style="list-style-type: none">▪ Story Maps- Advanced▪ R (Shiny)- Advanced▪ Tableau- Intermediate
Qualitative data analysis software	<ul style="list-style-type: none">▪ Nvivo- Intermediate▪ Mozdeh- Intermediate
Deep learning environment	<ul style="list-style-type: none">▪ YOLOv4 - Intermediate▪ Tensorflow- Advanced
Version Control	<ul style="list-style-type: none">▪ GitHub/GitLab- Advanced / Google CoLab- Intermediate

Last updated September 2022