Shaoqing Dai

iii Education

Ph.D Candidate

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■ Hengelosestraat 99, 7514AE, Enschede,the Netherlands
□ Deparment of Earth Obesrvation Science, ITC, UT



Last updated: December 4, 2020

		Ph.D., Faculty of Geo-information Science and Earth Observation(ITC), University of Twente Supervised by Prof. Alfred Stein and Prof.Peng Jia Thesis: Spatial Lifecourse Epidemiology and Health Geography
		Major in Acquisition and quality of geo-spatial information(ACQUAL) ◆ Enschede, Netherlands
		M.Sc. , <i>Institute of Urban Environment, Chinese Academy of Sciences</i> , University of Chinese Academy of Sciences
		Supervised by Prof. Yin Ren
		Thesis: Creating a Carbon Source and Sink Map by Coupling an Ecological Process Model with an
		Emission Inventory to Study a Carbon Balance
		Major in Ecology ♥ Xiamen, China
<u>~</u>	2012.09-	B.Sc., School of Geographical Sciences, Fuajian Normal University
		Supervised by Associate Prof. Huixian Jiang
	2010.00	Thesis: The Planning Location and Design of Smart Campus Based on BIM and GIS:A Case Study
		of Fujian Normal University
		Major in Geographical Science (National Talents Training Base)
		Research Interests
		Health Geography; Spatial Lifecourse Epidemiology; Spatial Statistics; Urban Computing; Spatial-Temporal Big Data; Ecoinformatics
		□ Developed Open Software
<u>~</u>	from 2018	D3L Tool of NASA Satellite
		(The program provides a graphical interface to download satellite imagery from NASA, such as MODIS products, MERIS and more information can see http://gisersqdai.top/D3LTool/)
<u>~</u>	from 2018	Geographical detector in R
		(The geographical detector software based on R)
<u>~</u>	from 2018	GitHub Paper Notebook
_		(The software for notebook of papers)
0-0	from 2019	rgeoda
Ш	1f0ffi 2019	
	_	rgeoda is a R package for spatial data analysis based on libgeoda and GeoDa(contributor).
	from 2020	COVID-19 Dashboard shiny app
		(A developed dashboard shiny app about COVID-19. https://gisersqdai.shinyapps.io/COVID19VIS/)
		
		Awards & Honors
	2019.06	China Scholarship Council(CSC) ♀ China
	2019.06	The 2nd Grade Scholarship of Yonker Environmental Protection Scholarship
	2019.06	The 1st Grade Scholarship of Institute of Urban Environment, Chinese Academy of Sciences[No.3 in
	2019.00	Institute] Visit Grade Scholarship of institute of Orban Environment, Chinese Academy of Sciences[No.5 III Institute]

2019.01	The Scientific and Technological Innovation Award of Outstanding Graduate Students of the Ecological Society of China
	♥ China
2018.11	National Scholarship for M.Sc[top 2-3%] ♥ China
2018.10	The National 3rd Prize in Urban Big Data Special Committee, Chinese Society for Urban Studies the 2nd Big Data Support Spatial Planning and Design Competition
2018.07	'Applied Energy' 2018 Summer School Certification ♥ Beijing, China
2018.06	Merit Students in the academic year 2017-2018, University of Chinese Academy of Sciences $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
2018.06	The 2nd Grade Scholarship of Institute of Urban Environment, Chinese Academy of Sciences[$No.9$ in Institute] \bigcirc Xiamen, China
2018.06	The 1st Scholarship of Institute of Urban Environment, Chinese Academy of Sciences
2018.03	The National Winning Award in National Science & Technology Infrastructure Center, 2017 'Sharing Cup' College Student Science and Technology Resource Sharing Service Innovation Contest ♥ China
2017.10	'Excellent Volunteer' award of 15th User Conference of Esri China
2017.06	Merit Students in the academic year 2016-2017, University of Chinese Academy of Sciences $m{Q}$ Beijing, China
2015.11	The National Winning Award in 2015 Esri Cup National Collegiate Developed Contest in GIS \cdot 3D Modeling and Design
2015.11	Inovation Scholoarships in the academic year 2014-2015, Fujian Normal University $\mbox{\mbox{\bf \sc V}}$ Fuzhou, China
2015.07	The National 3rd Prize in the Smart City Special Event Contest, the 14th Challenge Cup National College Students' Extracurricular Academic Science and Technology Works Contest ♥ China
2015.05	The First Annual Fujian Normal University Student Selection, Scientific and Technological Innovation award and Nomination
2015.03	The School Wining Award during the 9th Challenge Cup National College Students' Extracurricular Academic Science and Technology Works Contest ♀ Fuzhou, China
2014.11	Inovation Scholoarships in the academic year 2013-2014, Fujian Normal University $\mbox{\mbox{\bf \sc V}}$ Fuzhou, China
2014.07	The National 3rd Prize in 2014 MathorCup Global Collegiate Mathematical Contest in Modeling $lacktriangle$ China
2014.05	'Excellent League Cadres' in the academic year 2013-2014, Fujian Normal University $oldsymbol{Q}$ Fuzhou, China
2014.05	'Excellent League Leader' in the academic year 2013-2014, School of Geographical Sciences, Fujian Normal University
2013.05	'Excellent League Leader' in the academic year 2012-2013, School of Geographical Sciences, Fujian Normal University $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
	Academic Service & Affiliations
from 2019	International Institute of Spatial Lifecourse Epidemiology (ISLE) Fellow
from 2019	GeoDa Center, rgeoda, libgeoda Github Organizations Contributor
from 2015	The Organizations "Sustainable Cities & Mobility" Volunteer
from 2018	Aliyunqi Community Expert
from 2020 2017-2019	GISphere Editor Board, Member International Association of Landscape Ecology of China(IALE-China) Member
2011-2013	Weinber

2016-2017	Green Bike-Transit Volunteer
2013-2017	The Geographical Tribune of Youth
	Founder, Editor in Chief, Associate Editor, Assistant Editor in Chief
from 2019	European Heart Journal, Data in Brief, The Journal of Open Source Software, Shanghai Urban Planning Review

Reviewer



^{*}corresponding author, #co-first author.

Peer-Reviewed Journal Articles

- 1. **SQ. Dai**[#], Y. Ren, SD. Zuo, CY. Lai, JJ. Li, SY. Xie, BC. Chen. Investigating the uncertainties propagation analysis of CO₂ emissions gridded maps at the urban scales: a case study of Jinjiang city, China. *Remote Sensing*. 12(23), 3932. doi:10.3390/rs12233932. [SCI, IF = 4.509]
- 2. **SQ. Dai**, JJ. Li, WE. Yang, FY. Chen, HX. Jiang. (2020). The Evaluation of Health Effect of Short-term Exposure to PM2.5 during Spring Festival: A Case Study of 25 Cities in the Yangtze River Delta. *Shanghai Urban Planning Review.* 05, 22-29. doi:10.11982/j.supr.20200504. [in Chinese]
- 3. P. Jia, **SQ. Dai**,K. E. Rohli, R.V. Rohli, YN. Ma, C. Yu, XF. Pan, WQ. Zhou. (2020). Natural environment and childhood obesity: A systematic review. *Obesity Reviews*. 1-9. doi:10.1111/obr.13097. [SCI, IF = 7.31]
- 4. XF. Pan, H. Li, LX. Zhao, XR. Yang, JQ. Su, **SQ. Dai**, J. Ning, CX. Li, GJ. Cai, GF. Zhu. (2020). Response of syntrophic bacterial and methanogenic archaeal communities in paddy soil to soil type and phenological period of rice growth. *Journal of Cleaner Production*. 278, 123418. doi:10.1016/j.jclepro.2020.123418. [SCI, IF = 7.246]
- 5. P. Jia, XX. Cao, HX. Yang, **SQ. Dai**, P. He, GL. Huang, T. Wu, YG. Wang. (2020). Green space access in the neighbourhood and childhood obesity. *Obesity Reviews.* 1-12. doi:10.1111/obr.13100. [SCI, IF = 7.31]
- 6. MY. Luo, HQ. Li, XF. Pan, T. Fei, **SQ. Dai**, Q. Ge, YX. Zou, H. Vos, JY. Luo, P. Jia. (2020). Neighbourhood speed limit and childhood obesity. *Obesity Reviews*. 1-11. doi:10.1111/obr.13052. [SCI, IF = 7.31]
- 7. SY. Xie, GW. Yu, CX. Li, J. Li, G. Wang, **SQ. Dai**, Y. Wang. (2020). Treatment of high-ash industrial sludge for producing improved char with low heavy metal toxicity. *Journal of Analytical and Applied Pyrolysis*. *150*, 104866. doi:10.1016/j.jaap.2020.104866. [SCI, IF = 3.905]
- 8. XF. Pan, L. Zhao, JY. Luo, YH. Li, L.Zhang, T. Wu, M. Smith, **SQ. Dai**, P. Jia. (2020). Access to bike lanes and childhood obesity: A systematic review and meta-analysis. *Obesity Reviews*. 1-11. doi:10.1111/obr.13042. [SCI, IF = 7.31]
- 9. **SQ. Dai**, SD. Zuo, Y. Ren. (2020). A spatial database of CO₂ emissions, urban form fragmentation and city-scale effect related impact factors for the low carbon urban system in Jinjiang city, China. *Data in Brief.* 29, 105274. doi:10.1016/j.dib.2020.105274. [ESCI, CiteScore = 1.5]
- 10. SD. Zuo, **SQ. Dai**, Y. Ren. (2020). More fragmentized urban form more CO₂ emissions? An comprehensive relationship from the combination analysis across different scales. *Journal of Cleaner Production.* 244, 118659. doi:10.1016/j.jclepro.2019.118659. [SCI, IF = 7.246]
- 11. PF. Dou, SD. Zuo, Y. Ren, **SQ. Dai**, GL. Yun. (2019). The impacts of climate and land use/land cover changes on water yield service in Ningbo region. *Acta Scientiae Circumstantiae*. *39*(7), 2398-2409. doi:10.13671/j.hjkxxb.2019.0122. [CSCD, in Chinese]
- 12. Q. Yang, TY. Huang, SG. Wang, JS. Li, **SQ. Dai**, S. Wright, YX. Wang, & HW. Peng.(2019). A GIS-based high spatial resolution assessment of large-scale PV power generation potential and associated CO₂ emission reduction in China. *Applied Energy.* 247, 254-269. doi:10.1016/j.apenergy.2019.04.005. [SCI, IF = 8.848]
- 13. GL. Yun, YR. He, YT. Jiang, PF. Dou, **SQ. Dai**. (2019). PM2.5 spatiotemporal evolution and drivers in the Yangtze River Delta between 2005 and 2015. *Atmosphere*. 10(2), 55. doi:10.3390/atmos10020055. [SCI, IF = 2.397]
- 14. SD. Zuo, **SQ. Dai**, XD. Song, CD. Xu, YL. Liao, WY. Chang, Q. Chen, YY. Li, JF. Tang, W. Man, Y. Ren. (2018). Determining the Mechanisms that Influence the Surface Temperature of Urban Forest Canopies by Combining Remote Sensing Methods, Ground Observations, and Spatial Statistical Models. *Remote Sensing*. *10*(11), 1814. doi:10.3390/rs10111814. [SCI, IF = 4.509]
- 15. SD. Zuo, **SQ. Dai**, YY. Li, JF. Tang, Y. Ren. (2018). Analysis of Heavy Metal Sources in the Soil of Riverbanks Across an Urbanization Gradient. *International Journal of Environmental Research and Public Health*. 15(10),

- 2175. doi:10.3390/ijerph15102175. [SCI, IF = 2.849]
- 16. **SQ. Dai**, HX. Jiang, JJ. Li, X. Su, J. Wu, Y. Ren. (2018). Influence of walking environment on robbery, snatch and theft crime in urban area, H city, China. *Scientia Geographica Sinica*. *38*(8), 1235-1244. doi:10.13249/j.cnki.sgs.2018.08.005. [CSCD, in Chinese]
- 17. GL. Yun, SD. Zuo, **SQ. Dai**, XD. Song, CD. Xu, YL. Liao, PQ. Zhao, WY. Chang, Q. Chen, YY. Li, JF. Tang, W. Man, Y. Ren. (2018). Individual and Interactive Influences of Anthropogenic and Ecological Factors on Forest PM2.5 Concentrations at an Urban Scale. *Remote Sensing*. 10(4), 521. doi:10.3390/rs10040521. [SCI, IF = 4.509]
- 18. Q. Ye, G. Zeng, **SQ. Dai**, FL. Wang. (2018). Research on the effects of different policy tools on China's emissions reduction innovation. *China Population, Resources and Environment*. 28(02), 115-122. doi:10.12062/cpre.20170915. [CSCD, in Chinese]
- 19. Q. Ye, **SQ. Dai**, G. Zeng. (2017). Research on the effects of command-and-control and market-oriented policy tools on China's energy conservation and emissions reduction innovation. *Chinese Journal of Population Resources and Environment*. 16(1), 1-11. doi:10.1080/10042857.2017.1418273. [ESCI, CiteScore = 1.9]
- 20. MY. Li, **SQ. Dai**, JY. Wang, ZJ. Shen. (2016). The Analysis of Urban Spatial Development Pattern in Beijing Based on the Big Data of Government. *Geomatics World*. 23(3), 20-26. doi:10.3969/j.issn.1672-1586.2016.03.004. [in Chinese]

Book Chapter

- GL. Yun, SD. Zuo, SQ. Dai, XD. Song, CD. Xu, YL. Liao, PQ. Zhao, WY. Chang, Q. Chen, YY. Li, JF. Tang, W. Man, Y. Ren. (2019). Individual and Interactive Influences of Anthropogenic and Ecological Factors on Forest PM2.5 Concentrations at an Urban Scale. Advances in Quantitative Remote Sensing in China–In Memory of Prof. Xiaowen Li.316-332.
- SQ. Dai, JJ. Li, SD. Zuo, Y. Ren, HX. Jiang. (2017). Landscape-Scale Simulation Analysis of Waterlogging and Sponge City Planning for a Central Urban Area in Fuzhou City, China. *International Low Impact Development Conference China 2016: LID Applications in Sponge City Projects.* 251-260. doi:10.1061/9780784481042.028.
 [EI]

Patent

- 1. Y. Ren, XM. Zheng, **SQ. Dai**, Q.Chen, SD. Zuo. Improving the accuracy of forest biomass estimate using source analysis and machine learning. (*under review*).
- 2. Y. Ren, **SQ. Dai**, SD. Zuo, XM. Zheng. A forest inventory biomass estimation model by multi-sources data fusion. (*under review*).
- 3. Q. Chen, Y. Ren, XM. Zheng, SD. Zuo, **SQ. Dai**. A mixed-effect model for estimation of large area subtropical forest biomass. (*under review*).

Software Copyright

- 1. A water saftety monitation system based on environmental IOT data and InVEST model. V1.0. *RN: 2019SR0517519*. (2019).
- 2. A water conservation service monitation system based on environmental IOT data. V1.0. *RN: 2018SR745897*. (2018).

Conference Paper & Abstract

- 1. **SQ. Dai**, JJ. Li, WE. Yang, FY. Chen, HX. Jiang. (2020). The Evaluation of Health Effect of Short-term Exposure to PM2.5 during Spring Festival: A Case Study of 25 Cities in the Yangtze River Delta. *The Workshop of 16th Spatial Behavior and Planning & Digitalization and Fine-Grained Governance, abstract*
- 2. JJ. Li, YP. Liu, **SQ. Dai**, KY. Xiang, HX. Jiang, WQ. Chen. (2019). The night light uncovers city's weight—A case study on estimating construction materials in Fuzhou, China. *10th International Conference on Industrial Ecology, abstract 320*
- 3. **SQ. Dai**. (2018). The Scale Effect, Zoning Effect of Geographical Features, the Modified Areal Unit Problem and the Chanlleges of Spatial Stastistics. *11th Chinese R Language Conference, abstract*
- 4. **SQ. Dai**, SD. Zuo, Y. Ren. (2018). High-resolution mapping of direct CO₂ emissions and uncertainties at the urban scale. *Proceedings of Spatial Accuracy 2018*. 88-90. [EI]
- 5. **SQ. Dai**[#], XM. Zheng, SD. Zuo,Y. Ren. (2018). Improving the prediction accuracy of forest aboveground biomass benchmark map by integrating machine learning and spatial statistics. *Proceedings of Spatial Accuracy*

- 2018. 80-83. [EI]
- SD. Zuo, SQ. Dai, Y. Ren, ZW. Yu. (2017). Quantifying the linear and nonlinear relations between the urban form fragmentation and the carbon emission distribution. American Geophysical Union, Fall Meeting 2017, abstract GC21G-1007.
- 7. **SQ. Dai**, Y.Ren, SD. Zuo, M. Dai, P. Chen, Z. Wang, LX. Xu, JW. Qi, GL. Yun. (2017). The Environmental Effect of Urban Form on PM2.5: A Case Study of Beijing-Tianjin-Hebei Urban Agglomerations. *9th Chinese Landscape Eoclogy workshop, abstract*.
- 8. Q. Ye, G. Zeng, **SQ. Dai**, FL. Wang. (2017). Research on the Effects of Different Policy Tools on China's Energy Conservation and Emissions Reduction Innovation Based on the Panel Data of 285 prefectural-level municipalities. 2017 annual conference of the Chinese geographical society, economic geography and Specialized Committee Abstracts Proceedings, abstract.
- 9. **SQ. Dai**, Y.Ren, SD. Zuo. (2017). The relationship between the fragmented urban form landscape and the carbon emission distribution at different resolutions. *9th Lecture of Modern Ecology, abstract*.
- SQ. Dai, HX. Jiang, JJ. Li, X. Su, J. Wu, K. Chen. (2016). The environmental crime analysis based on WalkScore and CGT model, a case study of H city. The Workshop of 12th Spatial Behavior and Planning & Spatial-Temporal Behavior and Social Planning Researchg, abstract.
- 11. **SQ. Dai**, HX. Jiang, JJ. Li, QW. Xu. (2016). Transportation Planning of Smart City on the Basis of Data Augmentation Design Under the Perspective of Humanism: A Case Study of Fuzhou's Cangshan District. *10th annual conference of International Association of China Planning, abstract 1813.*
- 12. **SQ. Dai**, HX. Jiang, JJ. Li. (2016). The Simulation Analysis of Waterlogging and the Sponge City Planning Control of Central Urabn Area in Fuzhou City. *2016 International Low Impact Development Conference, paper 391*.

Open Dataset & Code

- 1. SQ. Dai. (2020). GISerDaiShaoqing/3dmodelFJNU 1.0 (Version 1.0). [Data set]. Zenodo. doi:10.5281/zenodo.4277977.
- 2. **SQ. Dai**, SD. Zuo, Y.Ren. (2020). GISerDaiShaoqing/Urban-Carbon-Dioxide-sources-gridded-maps-and-its-determination-in-Jinjiang-city 0.4 (Version 0.4). [Data set]. Zenodo. doi:10.5281/zenodo.3566072.

Papers submitted/under revision

- 1. **SQ. Dai**[#], XM. Zheng, L. Gao, CD. Xu, SD. Zuo, Q. Chen, XH. Wei, Y. Ren. Improving plot-level model of forest aboveground biomass: A combined approach using machine learning with spatial statistics. *Journal of Cleaner Production*. (under review).
- 2. XM. Zheng, **SQ. Dai**, Q. Chen, K. Calders, CD. Xu, XH. Wei, MZ. Zhuang, Y. Ren. Integrating Spatial Statistics and Machine Learning to Analyze Error Sources in Estimating Forest Aboveground Biomass from Airborne LiDAR Data. *Agricultural and Forest Meteorology*. (under revision).
- 3. LL. Song, **SQ. Dai**, Z. Cao, YP. Liu, WQ. Chen. Spatiotemporal dynamics of steel resources accumulated above ground in mainland China: 1995-2030. *Journal of Cleaner Production.* (under review).
- 4. SJ. Yang, **SQ. Dai**, YL Huang, P. Jia. Commentary: Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV2). *Frontiers in Public Health*. (*under review*).
- 5. PF. Dou, SD.Zuo, Y. Ren, M.J. Rodriguez, **SQ. Dai**. Refined water security assessment for sustainable water management: A case study of 15 key cities in the Yangtze River Delta, China. *Journal of Hydrology*. (under revision).
- 6. SD. Zuo, LP. Yang, PF. Dou, H. Chak Ho, **SQ. Dai**, WJ. Ma, Y. Ren, CR. Huang. The direct and interactive impacts of hydrological factors on bacillary dysentery across different geographical regions in central China. *Science of the Total Environment*. (under review).

Research Projects

- 2018-2019 'The construction of Typhoon Disaster Assessment Index Based on GIS and Multi-source Remote Sensing Data in Fujian Province', Open Fund of the Big Data Institute of Digital Natural Disaster Monitoring in Fujian (NDMBD2018001)
 Investigator
- 2016-2020 'Research on the key technology research and integration demonstration of urban agglomeration ecological security in the Yangtze River Delta', National Key Research and Development Plan(2016YFC0502704)

 Investigator

2 015-2018	'Scaling up of carbon sequestration for Eucalyptus plantations based on ETKF-3DVAR hybrid data assimilation', National Natural Science Foundation of China(31470578) Investigator
2 015-2016	'The Spatiotemporal Difference of Tourism in Fujian Province Based on Spatial Mismatch Theory', The Technological Innovation Plan of University Students, Fujian Normal University(cxxl-2015137) Investigator
2 015-2016	'The Spatial Optimization Evaluation of Medical Facility Based on GIS in Cangshan District, Fuzhou', The Technological Innovation Plan of University Students, Fujian Normal University(cxxl-2015146) Investigator
2 014-2015	'The Optimization Model of High Education Staff's Refuge Space Under Earthquake Disater', The Technological Innovation Plan of University Students, Fujian Normal University(cxxl-2014137) PI
	♀ Presentations
2 020.12.12	The Evaluation of Health Effect of Short-term Exposure to PM2.5 during Spring Festival: A Case Study of 25 Cities in the Yangtze River Delta(invited), The Workshop of 16th Spatial Behavior and Planning & Digitalization and Fine-Grained Governance
	♥ Xiamen University, Xiamen, China
2020.08.07	What is geography? From coronavirus disease 2019 to Bei Dou Systems, Geography lecture group, Tong An No.1 High School of Fujian
1 111	▼ Tong An No.1 High School of Fujian, Xiamen, China
2 018.05.27	The Scale Effect, Zoning Effect of Geographical Features, the Modified Areal Unit Problem and the Chanlleges of Spatial Stastistics, 11th Chinese R Language Conference
2 018.05.22	High-Resolution Mapping of Direct CO ₂ Emissions and Uncertainties at the Urban Scale, 13th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences(Spatial Accuracy 2018)
44 0017 11 11	♥ China National Convention Center, Beijing, China
2017.11.11	The Environmental Effect of Urban Form on PM2.5: A Case Study of Beijing-Tianjin-Hebei Urban Agglomeration, 9th Chinese Landscape Eoclogy workshop Sanyu Houtel, Guangzhou, China
2 017.09.28	The Assement Platform of Urban Forest Ecosystem Servcie Based on InVEST model and IOT(invited), 2rd urban environment long-term monitor and sustainable development workshop Shanghai Normal University, Shanghai, China
2 016.11.27	The Criminal Geographical Analysis about Walking Environment of Urban, The Workshop of 12th Spatial Behavior and Planning & Spatial-Temporal Behavior and Social Planning Research
2 016.07.01	Transportation Planning of Smart City on the Basis of Data Augmentation Design Under the Perspective of Humanism: A Case Study of Fuzhou's Cangshan District, 10th annual conference of International Association of China Planning
	Peking University, Beijing, China
	Selected Posters
2 017.12.10	Quantifying the linear and nonlinear relations between the urban form fragmentation and the carbon emission distribution, 2017 AGU Fall Meeting
	♥ New Orleans, LA, USA.
2 017.05.16	The relationship between the fragmented urban form landscape and the carbon emission distribution at different resolutions, 9th Lecture of Modern Ecology
	♥ Shanghai, China

2016.06.26 The Simulation Analysis of Waterlogging and the Sponge City Planning Control of Central Urabn Area in Fuzhou City, 2016 International Low Impact Development Conference **♥** China National Convention Center, Beijing, China Chinese Native English First foreign language ■ □ Expertise & Skills

Major GIScience, Remote Sensing, Health Geography, Spatial Statistics, Urban Studies, Environments,

Ecological Modelling, Landscape Ecology

Programming R, Python, CGA, Shell, LaTeX, Makrdown, Github

ArcGIS, ENVI, Erdas Image, City Engine **Expertise**