

# Song Gao

## List of Publications by Year in descending order

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Version: 2024-02-01

102  
papers

5,163  
citations

168829

31  
h-index

111975

67  
g-index

108  
all docs

108  
docs citations

108  
times ranked

4604  
citing authors

#	ARTICLE	IF	CITATIONS
1	Staying at Home Is a Privilege: Evidence from Fine-Grained Mobile Phone Location Data in the United States during the COVID-19 Pandemic. <i>Annals of the American Association of Geographers</i> , 2022, 112, 286-305.	1.5	63
2	A review of location encoding for GeoAI: methods and applications. <i>International Journal of Geographical Information Science</i> , 2022, 36, 639-673.	2.2	47
3	Reconciling public health common good and individual privacy: new methods and issues in geoprivacy. <i>International Journal of Health Geographics</i> , 2022, 21, 1.	1.2	8
4	Big Geo-data. , 2022, , 103-105.		0
5	Spatial Scientometrics. , 2022, , 872-874.		0
6	STICC: a multivariate spatial clustering method for repeated geographic pattern discovery with consideration of spatial contiguity. <i>International Journal of Geographical Information Science</i> , 2022, 36, 1518-1549.	2.2	8
7	DeepSSN: A deep convolutional neural network to assess spatial scene similarity. <i>Transactions in GIS</i> , 2022, 26, 1914-1938.	1.0	3
8	Exploring the spatial disparity of homeâ€dwelling time patterns in the USA during the COVIDâ€19 pandemic via Bayesian inference. <i>Transactions in GIS</i> , 2022, 26, 1939-1961.	1.0	11
9	COVID-19 lockdown introduces human mobility pattern changes for both Guangdong-Hong Kong-Macao greater bay area and the San Francisco bay area. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2022, 112, 102848.	0.9	2
10	Towards Place-Based GIS. , 2022, , 51-58.		1
11	Points of Interest (POI): a commentary on the state of the art, challenges, and prospects for the future. <i>Computational Urban Science</i> , 2022, 2, .	1.9	30
12	A Five-Star Guide for Achieving Replicability and Reproducibility When Working with GIS Software and Algorithms. <i>Annals of the American Association of Geographers</i> , 2021, 111, 1311-1317.	1.5	21
13	Understanding house price appreciation using multi-source big geo-data and machine learning. <i>Land Use Policy</i> , 2021, 111, 104919.	2.5	83
14	Multi-objective trajectory optimization in planning for sequential activities across space and through time. <i>Environment and Planning B: Urban Analytics and City Science</i> , 2021, 48, 945-963.	1.0	1
15	Activity knowledge discovery: Detecting collective and individual activities with digital footprints and open source geographic data. <i>Computers, Environment and Urban Systems</i> , 2021, 85, 101551.	3.3	15
16	Automatic Urban Road Network Extraction From Massive GPS Trajectories of Taxis. , 2021, , 261-283.		3
17	Urban Flood Mapping With Bitemporal Multispectral Imagery Via a Self-Supervised Learning Framework. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 2001-2016.	2.3	24
18	User-Generated Content: A Promising Data Source for Urban Informatics. <i>Urban Book Series</i> , 2021, , 503-522.	0.3	6

#	ARTICLE	IF	CITATIONS
19	Exploring Store Visit Changes During the COVID-19 Pandemic Using Mobile Phone Location Data. <i>Human Dynamics in Smart Cities</i> , 2021, , 253-275.	0.2	1
20	Prediction of human activity intensity using the interactions in physical and social spaces through graph convolutional networks. <i>International Journal of Geographical Information Science</i> , 2021, 35, 2489-2516.	2.2	25
21	A privacy-preserving framework for location recommendation using decentralized collaborative machine learning. <i>Transactions in GIS</i> , 2021, 25, 1153-1175.	1.0	17
22	Intracounty modeling of COVID-19 infection with human mobility: Assessing spatial heterogeneity with business traffic, age, and race. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	89
23	Urban function classification at road segment level using taxi trajectory data: A graph convolutional neural network approach. <i>Computers, Environment and Urban Systems</i> , 2021, 87, 101619.	3.3	69
24	Locating Community-Based Comprehensive Service Facilities for Older Adults Using the GIS-NEMA Method in Harbin, China. <i>Journal of the Urban Planning and Development Division, ASCE</i> , 2021, 147, .	0.8	8
25	Quantifying COVID-19 importation risk in a dynamic network of domestic cities and international countries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	28
26	A Multi-perspective Narrative-Based Geovisualization Dashboard for the 2020 US Presidential Election. <i>Journal of Geovisualization and Spatial Analysis</i> , 2021, 5, 1.	2.1	1
27	Impacts of COVID-19 lockdowns and stimulus payments on low-income population's spending in the United States. <i>PLoS ONE</i> , 2021, 16, e0256407.	1.1	19
28	Places for play: Understanding human perception of playability in cities using street view images and deep learning. <i>Computers, Environment and Urban Systems</i> , 2021, 90, 101693.	3.3	31
29	Human settlement value assessment from a place perspective: Considering human dynamics and perceptions in house price modeling. <i>Cities</i> , 2021, 118, 103333.	2.7	39
30	GeoAI: spatially explicit artificial intelligence techniques for geographic knowledge discovery and beyond. <i>International Journal of Geographical Information Science</i> , 2020, 34, 625-636.	2.2	156
31	Investigating urban metro stations as cognitive places in cities using points of interest. <i>Cities</i> , 2020, 97, 102561.	2.7	36
32	Understanding neighborhood isolation through spatial interaction network analysis using location big data. <i>Environment and Planning A</i> , 2020, 52, 1027-1031.	2.1	25
33	Urban Air Pollution May Enhance COVID-19 Case-Fatality and Mortality Rates in the United States. <i>Innovation(China)</i> , 2020, 1, 100047.	5.2	177
34	Multiscale dynamic human mobility flow dataset in the U.S. during the COVID-19 epidemic. <i>Scientific Data</i> , 2020, 7, 390.	2.4	140
35	A review of urban physical environment sensing using street view imagery in public health studies. <i>Annals of GIS</i> , 2020, 26, 261-275.	1.4	116
36	Association of Mobile Phone Location Data Indications of Travel and Stay-at-Home Mandates With COVID-19 Infection Rates in the US. <i>JAMA Network Open</i> , 2020, 3, e2020485.	2.8	145

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37	Calibrating the dynamic Huff model for business analysis using location big data. <i>Transactions in GIS</i> , 2020, 24, 681-703.	1.0	24
38	Progress in computational movement analysis “ towards movement data science. <i>International Journal of Geographical Information Science</i> , 2020, 34, 2395-2400.	2.2	21
39	Uncovering inconspicuous places using social media check-ins and street view images. <i>Computers, Environment and Urban Systems</i> , 2020, 81, 101478.	3.3	66
40	Estimation of Regional Economic Development Indicator from Transportation Network Analytics. <i>Scientific Reports</i> , 2020, 10, 2647.	1.6	33
41	State-specific projection of COVID-19 infection in the United States and evaluation of three major control measures. <i>Scientific Reports</i> , 2020, 10, 22429.	1.6	22
42	Mapping county-level mobility pattern changes in the United States in response to COVID-19. <i>SIGSPATIAL Special</i> , 2020, 12, 16-26.	2.5	28
43	Mapping county-level mobility pattern changes in the United States in response to COVID-19. <i>SIGSPATIAL Special</i> , 2020, 12, 16-26.	2.5	180
44	Machine Learning Approaches. <i>Geographic Information Science &amp; Technology Body of Knowledge</i> , 2020, 2020, .	0.1	0
45	Cities as Spatial and Social Networks: Towards a Spatio-Socio-Semantic Analysis Framework. <i>Human Dynamics in Smart Cities</i> , 2019, , 21-37.	0.2	7
46	Modeling the Vagueness of Areal Geographic Objects: A Categorization System. <i>ISPRS International Journal of Geo-Information</i> , 2019, 8, 306.	1.4	11
47	Predicting the spatiotemporal legality of on-street parking using open data and machine learning. <i>Annals of GIS</i> , 2019, 25, 299-312.	1.4	21
48	A roundtable discussion: Defining urban data science. <i>Environment and Planning B: Urban Analytics and City Science</i> , 2019, 46, 1756-1768.	1.0	14
49	Combining Design Patterns and Topic Modeling to Discover Regions That Support Particular Functionality. <i>ISPRS International Journal of Geo-Information</i> , 2019, 8, 385.	1.4	11
50	Transferring multiscale map styles using generative adversarial networks. <i>International Journal of Cartography</i> , 2019, 5, 115-141.	0.2	44
51	Extracting human emotions at different places based on facial expressions and spatial clustering analysis. <i>Transactions in GIS</i> , 2019, 23, 450-480.	1.0	53
52	Reconstruction of human movement trajectories from large-scale low-frequency mobile phone data. <i>Computers, Environment and Urban Systems</i> , 2019, 77, 101346.	3.3	55
53	GeoAI 2018 workshop report the 2nd ACM SIGSPATIAL international workshop on GeoAI. <i>SIGSPATIAL Special</i> , 2019, 10, 16-16.	2.5	8
54	Dynamic Estimation of Individual Exposure Levels to Air Pollution Using Trajectories Reconstructed from Mobile Phone Data. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 4522.	1.2	21

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55	GeoAI at ACM SIGSPATIAL. SIGSPATIAL Special, 2019, 11, 5-15.	2.5	29
56	Exploring the uncertainty of activity zone detection using digital footprints with multi-scaled DBSCAN. International Journal of Geographical Information Science, 2019, 33, 1196-1223.	2.2	31
57	Using Semantic Signatures for Social Sensing in Urban Environments. , 2019, , 31-54.		12
58	Identifying spatial interaction patterns of vehicle movements on urban road networks by topic modelling. Computers, Environment and Urban Systems, 2019, 74, 50-61.	3.3	41
59	A Data-Driven Approach to Understanding and Predicting the Spatiotemporal Availability of Street Parking. , 2019, , .		2
60	Exploring the effectiveness of geomasking techniques for protecting the geoprivacy of Twitter users. Journal of Spatial Information Science, 2019, , .	1.1	7
61	Spatio-Temporal-Network Visualization for Exploring Human Movements and Interactions in Physical and Virtual Spaces. Human Dynamics in Smart Cities, 2018, , 67-80.	0.2	2
62	ADCN: An anisotropic density-based clustering algorithm for discovering spatial point patterns with noise. Transactions in GIS, 2018, 22, 348-369.	1.0	13
63	A context-based geoprocessing framework for optimizing meetup location of multiple moving objects along road networks. International Journal of Geographical Information Science, 2018, 32, 1368-1390.	2.2	23
64	Utilizing Reverse Viewshed Analysis in Image Geo-Localization. , 2018, , .		4
65	Place versus Space: From Points, Lines and Polygons in GIS to Place-Based Representations Reflecting Language and Culture. ISPRS International Journal of Geo-Information, 2018, 7, 452.	1.4	29
66	Optimizing Bus Stop Spacing Using the Simulated Annealing Algorithm with Spatial Interaction Coverage Model. , 2018, , .		3
67	Mobile GIS and Location-Based Services. , 2018, , 384-397.		10
68	GeoAI 2017 workshop report: the 1st ACM SIGSPATIAL International Workshop on GeoAI: @AI and Deep Learning for Geographic Knowledge Discovery. SIGSPATIAL Special, 2018, 9, 25-25.	2.5	10
69	Location-Based Services. , 2018, 2018, .		9
70	Extracting urban functional regions from points of interest and human activities on location-based social networks. Transactions in GIS, 2017, 21, 446-467.	1.0	298
71	Constructing gazetteers from volunteered Big Geo-Data based on Hadoop. Computers, Environment and Urban Systems, 2017, 61, 172-186.	3.3	110
72	Road2Vec: Measuring Traffic Interactions in Urban Road System from Massive Travel Routes. ISPRS International Journal of Geo-Information, 2017, 6, 321.	1.4	50

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73	From ITDL to Place2Vec. , 2017, , .		85
74	Uncovering the Digital Divide and the Physical Divide in Senegal Using Mobile Phone Data. Advances in Geographic Information Science, 2017, , 143-151.	0.3	3
75	Big Geo-Data. , 2017, , 1-3.		0
76	Identifying Local Spatiotemporal Autocorrelation Patterns of Taxi Pick-ups and Dropoffs. International Conference on GIScience Short Paper Proceedings, 2016, 1, .	0.0	1
77	VOLT: A Provenance-Producing, Transparent SPARQL Proxy for the On-Demand Computation of Linked Data and its Application to Spatiotemporally Dependent Data. Lecture Notes in Computer Science, 2016, , 523-538.	1.0	10
78	Employing spatial analysis in indoor positioning and tracking using wi-fi access points. , 2016, , .		9
79	Crowdsensing smart ambient environments and services. Transactions in GIS, 2016, 20, 382-398.	1.0	20
80	Moon Landing or Safari? A Study of Systematic Errors and Their Causes in Geographic Linked Data. Lecture Notes in Computer Science, 2016, , 275-290.	1.0	7
81	ADCN. , 2016, , .		2
82	How where is when? On the regional variability and resolution of geosocial temporal signatures for points of interest. Computers, Environment and Urban Systems, 2015, 54, 336-346.	3.3	58
83	POI Pulse: A Multi-granular, Semantic Signatureâ€‘Based Information Observatory for the Interactive Visualization of Big Geosocial Data. Cartographica, 2015, 50, 71-85.	0.2	84
84	"Towards a frontier of spatial scientometric studies" by SONG Gao with Martin Vesely as coordinator. SIGWEB Newsletter: the Newsletter of ACM's Special Interest Group on Hypertext and Hypermedia, 2015, , 1-9.	0.5	0
85	Metadata Topic Harmonization and Semantic Search for Linkedâ€‘Dataâ€‘Driven Geoportals: A Case Study Using ArcGIS Online. Transactions in GIS, 2015, 19, 398-416.	1.0	32
86	Performance improvement techniques for geospatial web services in a cyberinfrastructure environment â€‘ A case study with a disaster management portal. Computers, Environment and Urban Systems, 2015, 54, 314-325.	3.3	42
87	Social Sensing: A New Approach to Understanding Our Socioeconomic Environments. Annals of the American Association of Geographers, 2015, 105, 512-530.	3.0	557
88	Spatio-Temporal Analytics for Exploring Human Mobility Patterns and Urban Dynamics in the Mobile Age. Spatial Cognition and Computation, 2015, 15, 86-114.	0.6	99
89	Extracting and understanding urban areas of interest using geotagged photos. Computers, Environment and Urban Systems, 2015, 54, 240-254.	3.3	232
90	Enabling Semantic Search and Knowledge Discovery for ArcGIS Online: A Linked-Data-Driven Approach. Lecture Notes in Geoinformation and Cartography, 2015, , 107-124.	0.5	8

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91	Discovering Spatial Interaction Communities from Mobile Phone <sc>Data. Transactions in GIS, 2013, 17, 463-481.	1.0	203
92	Asking Spatial Questions to Identify GIS Functionality. , 2013, , .		12
93	Towards Platial Joins and Buffers in Place-Based GIS. , 2013, , .		3
94	Understanding Urban Traffic-Flow Characteristics: A Rethinking of Betweenness Centrality. Environment and Planning B: Planning and Design, 2013, 40, 135-153.	1.7	139
95	A spatiotemporal scientometrics framework for exploring the citation impact of publications and scientists. , 2013, , .		9
96	Understanding intra-urban trip patterns from taxi trajectory data. Journal of Geographical Systems, 2012, 14, 463-483.	1.9	273
97	Urban land uses and traffic "source-sink areas": Evidence from GPS-enabled taxi data in Shanghai. Landscape and Urban Planning, 2012, 106, 73-87.	3.4	344
98	A semantic geographical knowledge wiki system mashed up with Google Maps. Science China Technological Sciences, 2010, 53, 52-60.	2.0	12
99	A design of RESTful style digital gazetteer service in cloud computing environment. , 2010, , .		6
100	Analyzing and geo-visualizing individual human mobility patterns using mobile call records. , 2010, , .		42
101	A data-synthesis-driven method for detecting and extracting vague cognitive regions. International Journal of Geographical Information Science, 0, , 1-27.	2.2	30
102	Mapping County-Level Mobility Pattern Changes in the United States in Response to COVID-19. SSRN Electronic Journal, 0, , .	0.4	33