Zhenlong Li

List of Publications by Year
in descending order

91 papers	3,324 citations	159525 30 h-index	168321 53 g-index
103 all docs	103 docs citations	103 times ranked	2795 citing authors

#	Article	IF	Citations
1	Big Data and cloud computing: innovation opportunities and challenges. International Journal of Digital Earth, 2017, 10, 13-53.	1.6	537
2	Twitter reveals human mobility dynamics during the COVID-19 pandemic. PLoS ONE, 2020, 15, e0241957.	1.1	165
3	A novel approach to leveraging social media for rapid flood mapping: a case study of the 2015 South Carolina floods. Cartography and Geographic Information Science, 2018, 45, 97-110.	1.4	148
4	Topic modeling and sentiment analysis of global climate change tweets. Social Network Analysis and Mining, 2019, 9, 1.	1.9	146
5	Leveraging Twitter to gauge evacuation compliance: Spatiotemporal analysis of Hurricane Matthew. PLoS ONE, 2017, 12, e0181701.	1.1	111
6	Human mobility data in the COVID-19 pandemic: characteristics, applications, and challenges. International Journal of Digital Earth, 2021, 14, 1126-1147.	1.6	110
7	Using spatial principles to optimize distributed computing for enabling the physical science discoveries. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5498-5503.	3.3	107
8	Taking the pulse of COVID-19: a spatiotemporal perspective. International Journal of Digital Earth, 2020, 13, 1186-1211.	1.6	88
9	Revealing Public Opinion Towards COVID-19 Vaccines With Twitter Data in the United States: Spatiotemporal Perspective. Journal of Medical Internet Research, 2021, 23, e30854.	2.1	87
10	Understanding demographic and socioeconomic biases of geotagged Twitter users at the county level. Cartography and Geographic Information Science, 2019, 46, 228-242.	1.4	86
11	Disparity in HIV Service Interruption in the Outbreak of COVID-19 in South Carolina. AIDS and Behavior, 2021, 25, 49-57.	1.4	62
12	The characteristics of multi-source mobility datasets and how they reveal the luxury nature of social distancing in the U.S. during the COVID-19 pandemic. International Journal of Digital Earth, 2021, 14, 424-442.	1.6	62
13	Spatiotemporal event detection: a review. International Journal of Digital Earth, 2020, 13, 1339-1365.	1.6	57
14	A spatiotemporal indexing approach for efficient processing of big array-based climate data with MapReduce. International Journal of Geographical Information Science, 2017, 31, 17-35.	2.2	54
15	A near real-time flood-mapping approach by integrating social media and post-event satellite imagery. Annals of GIS, 2018, 24, 113-123.	1.4	53
16	An optimized framework for seamlessly integrating OGC Web Services to support geospatial sciences. International Journal of Geographical Information Science, 2011, 25, 595-613.	2.2	52
17	Time-Series Clustering for Home Dwell Time during COVID-19: What Can We Learn from It?. ISPRS International Journal of Geo-Information, 2020, 9, 675.	1.4	49
18	A graph-based approach to detecting tourist movement patterns using social media data. Cartography and Geographic Information Science, 2019, 46, 368-382.	1.4	48

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19	Using geotagged tweets to track population movements to and from Puerto Rico after Hurricane Maria. Population and Environment, 2020, 42, 4-27.	1.3	48
20	Semantic-based web service discovery and chaining for building an Arctic spatial data infrastructure. Computers and Geosciences, 2011, 37, 1752-1762.	2.0	44
21	Evaluating open-source cloud computing solutions for geosciences. Computers and Geosciences, 2013, 59, 41-52.	2.0	42
22	Monitoring and evaluating the quality of Web Map Service resources for optimizing map composition over the internet to support decision making. Computers and Geosciences, 2011, 37, 485-494.	2.0	40
23	Building Model as a Service to support geosciences. Computers, Environment and Urban Systems, 2017, 61, 141-152.	3.3	40
24	A Service Brokering and Recommendation Mechanism for Better Selecting Cloud Services. PLoS ONE, 2014, 9, e105297.	1.1	38
25	Automatic Scaling Hadoop in the Cloud for Efficient Process of Big Geospatial Data. ISPRS International Journal of Geo-Information, 2016, 5, 173.	1.4	37
26	Bridging Twitter and Survey Data for Evacuation Assessment of Hurricane Matthew and Hurricane Irma. Natural Hazards Review, 2020, 21, .	0.8	37
27	Enabling Big Geoscience Data Analytics with a Cloud-Based, MapReduce-Enabled and Service-Oriented Workflow Framework. PLoS ONE, 2015, 10, e0116781.	1.1	37
28	Human mobility and COVID-19 transmission: a systematic review and future directions. Annals of GIS, 2022, 28, 501-514.	1.4	35
29	Using Mobile Device Data to Track the Effects of the COVID-19 Pandemic on Spatiotemporal Patterns of National Park Visitation. Sustainability, 2021, 13, 9366.	1.6	34
30	Prototyping a Social Media Flooding Photo Screening System Based on Deep Learning. ISPRS International Journal of Geo-Information, 2020, 9, 104.	1.4	33
31	A 100 m population grid in the CONUS by disaggregating census data with open-source Microsoft building footprints. Big Earth Data, 2021, 5, 112-133.	2.0	32
32	Reconstructing Flood Inundation Probability by Enhancing Near Real-Time Imagery With Real-Time Gauges and Tweets. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4691-4701.	2.7	31
33	A general-purpose framework for parallel processing of large-scale LiDAR data. International Journal of Digital Earth, 2018, 11, 26-47.	1.6	30
34	A visualâ€“textual fused approach to automated tagging of flood-related tweets during a flood event. International Journal of Digital Earth, 2019, 12, 1248-1264.	1.6	30
35	Delineating and modeling activity space using geotagged social media data. Cartography and Geographic Information Science, 2020, 47, 277-288.	1.4	30
36	Spatial-Temporal Relationship Between Population Mobility and COVID-19 Outbreaks in South Carolina: Time Series Forecasting Analysis. Journal of Medical Internet Research, 2021, 23, e27045.	2.1	29

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37	Monitoring the Spatial Spread of COVID-19 and Effectiveness of Control Measures Through Human Movement Data: Proposal for a Predictive Model Using Big Data Analytics. JMIR Research Protocols, 2020, 9, e24432.	0.5	29
38	Social Network, Activity Space, Sentiment, and Evacuation: What Can Social Media Tell Us?. Annals of the American Association of Geographers, 2019, 109, 1795-1810.	1.5	25
39	ODT FLOW: Extracting, analyzing, and sharing multi-source multi-scale human mobility. PLoS ONE, 2021, 16, e0255259.	1.1	25
40	Identifying disaster related social media for rapid response: a visual-textual fused CNN architecture. International Journal of Digital Earth, 2020, 13, 1017-1039.	1.6	23
41	Introduction to social sensing and big data computing for disaster management. International Journal of Digital Earth, 2019, 12, 1198-1204.	1.6	21
42	A Web-Based Geovisual Analytical System for Climate Studies. Future Internet, 2012, 4, 1069-1085.	2.4	19
43	A high performance query analytical framework for supporting data-intensive climate studies. Computers, Environment and Urban Systems, 2017, 62, 210-221.	3.3	19
44	Spatiotemporal Patterns of Human Mobility and Its Association with Land Use Types during COVID-19 in New York City. ISPRS International Journal of Geo-Information, 2021, 10, 344.	1.4	19
45	Measuring global multi-scale place connectivity using geotagged social media data. Scientific Reports, 2021, 11, 14694.	1.6	19
46	Exploring the vertical dimension of street view image based on deep learning: a case study on lowest floor elevation estimation. International Journal of Geographical Information Science, 2022, 36, 1317-1342.	2.2	19
47	Adopting cloud computing to optimize spatial web portals for better performance to support Digital Earth and other global geospatial initiatives. International Journal of Digital Earth, 2015, 8, 451-475.	1.6	18
48	Geospatial Service Web: towards integrated cyberinfrastructure for GIScience. Geo-Spatial Information Science, 2012, 15, 73-84.	2.4	16
49	Geospatial Big Data Handling with High Performance Computing: Current Approaches and Future Directions. Geotechnologies and the Environment, 2020, , 53-76.	0.3	16
50	Optimizing an index with spatiotemporal patterns to support GEOSS Clearinghouse. International Journal of Geographical Information Science, 2014, 28, 1459-1481.	2.2	15
51	An Efficient Framework for Remote Sensing Parallel Processing: Integrating the Artificial Bee Colony Algorithm and Multiagent Technology. Remote Sensing, 2019, 11, 152.	1.8	15
52	Evacuation Departure Timing during Hurricane Matthew. Weather, Climate, and Society, 2020, 12, 235-248.	0.5	14
53	A geospatial hybrid cloud platform based on multi-sourced computing and model resources for geosciences. International Journal of Digital Earth, 2018, 11, 1184-1204.	1.6	13
54	Social distance integrated gravity model for evacuation destination choice. International Journal of Digital Earth, 0, , 1-15.	1.6	13

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55	The GEOSS clearinghouse high performance search engine. , 2011, , .		12
56	Choosing an appropriate training set size when using existing data to train neural networks for land cover segmentation. Annals of GIS, 2020, 26, 329-342.	1.4	12
57	Social Capital, Urbanization Level, and COVID-19 Vaccination Uptake in the United States: A National Level Analysis. Vaccines, 2022, 10, 625.	2.1	12
58	SOVAS: a scalable online visual analytic system for big climate data analysis. International Journal of Geographical Information Science, 2020, 34, 1188-1209.	2.2	11
59	Simulating multiâ€exit evacuation using deep reinforcement learning. Transactions in GIS, 2021, 25, 1542-1564.	1.0	11
60	Exploring the spatial disparity of homeâ€dwelling time patterns in the USA during the COVIDâ€19 pandemic via Bayesian inference. Transactions in GIS, 2022, 26, 1939-1961.	1.0	11
61	A Comparison between Sentinel-2 and Landsat 8 OLI Satellite Images for Soil Salinity Distribution Mapping Using a Deep Learning Convolutional Neural Network. Canadian Journal of Remote Sensing, 2022, 48, 452-468.	1.1	11
62	A High Performance Web-Based System for Analyzing and Visualizing Spatiotemporal Data for Climate Studies. Lecture Notes in Computer Science, 2013, , 190-198.	1.0	10
63	Forming a global monitoring mechanism and a spatiotemporal performance model for geospatial services. International Journal of Geographical Information Science, 2015, 29, 375-396.	2.2	10
64	Twitter Analytics-Based Assessment: Are the United States Coastal Regions Prepared for Climate ChangeÆ'. , 2018, , .		10
65	Introduction to Big Data Computing for Geospatial Applications. ISPRS International Journal of Geo-Information, 2020, 9, 487.	1.4	10
66	Local motion simulation using deep reinforcement learning. Transactions in GIS, 2020, 24, 756-779.	1.0	10
67	The times, they are a-changinâ€™: tracking shifts in mental health signals from early phase to later phase of the COVID-19 pandemic in Australia. BMJ Global Health, 2022, 7, e007081.	2.0	10
68	Deep Learning of High-Resolution Aerial Imagery for Coastal Marsh Change Detection: A Comparative Study. ISPRS International Journal of Geo-Information, 2022, 11, 100.	1.4	10
69	Learning-Based Methods for Detection and Monitoring of Shallow Flood-Affected Areas: Impact of Shallow-Flood Spreading on Vegetation Density. Canadian Journal of Remote Sensing, 2022, 48, 481-503.	1.1	10
70	Contemporary Computing Technologies for Processing Big Spatiotemporal Data. , 2015, , 327-351.		9
71	Developing Subdomain Allocation Algorithms Based on Spatial and Communicational Constraints to Accelerate Dust Storm Simulation. PLoS ONE, 2016, 11, e0152250.	1.1	9
72	Three dimensions of COVIDâ€19 risk perceptions and their socioeconomic correlates in the United States: A social media analysis. Risk Analysis, 2023, 43, 1174-1186.	1.5	9

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73	Mining frequent trajectory patterns from online footprints. , 2016, , .		8
74	Geospatial Information Processing Technologies. , 2020, , 191-227.		7
75	Population Mobility and Aging Accelerate the Transmission of Coronavirus Disease 2019 in the Deep South: A County-Level Longitudinal Analysis. Clinical Infectious Diseases, 2022, 74, e1-e3.	2.9	7
76	Geospatial Assessment of Wetness Dynamics in the October 2015 SC Flood with Remote Sensing and Social Media. Southeastern Geographer, 2018, 58, 164-180.	0.1	6
77	Building a social media-based HIV risk behavior index to inform the prediction of HIV new diagnosis: a feasibility study. Aids, 2021, 35, S91-S99.	1.0	6
78	Does Distance Still Matter? Moderating Effects of Distance Measures on the Relationship Between Pandemic Severity and Bilateral Tourism Demand. Journal of Travel Research, 2023, 62, 610-625.	5.8	6
79	Studying patterns and predictors of HIV viral suppression using A Big Data approach: a research protocol. BMC Infectious Diseases, 2022, 22, 122.	1.3	6
80	Correlates of Zero-Dose Vaccination Status among Children Aged 12â€“59 Months in Sub-Saharan Africa: A Multilevel Analysis of Individual and Contextual Factors. Vaccines, 2022, 10, 1052.	2.1	6
81	Detecting new building construction in urban areas based on images of small unmanned aerial system. Papers in Applied Geography, 2020, 6, 56-71.	0.8	5
82	Introducing Twitter Daily Estimates of Residents and Non-Residents at the County Level. Social Sciences, 2021, 10, 227.	0.7	5
83	A novel big data approach to measure and visualize urban accessibility. Computational Urban Science, 2021, 1, 1.	1.9	4
84	Urban-regional disparities in mental health signals in Australia during the COVID-19 pandemic: a study via Twitter data and machine learning models. Cambridge Journal of Regions, Economy and Society, 2022, 15, 663-682.	1.7	4
85	Human Mobility Data in the COVID-19 Pandemic: Characteristics, Applications, and Challenges. SSRN Electronic Journal, 0, , .	0.4	3
86	Temporal Geospatial Analysis of COVID-19 Pre-Infection Determinants of Risk in South Carolina. International Journal of Environmental Research and Public Health, 2021, 18, 9673.	1.2	3
87	The promise of excess mobility analysis: measuring episodic-mobility with geotagged social media data. Cartography and Geographic Information Science, 2022, 49, 464-478.	1.4	3
88	The impact of MTUP to explore online trajectories for human mobility studies. , 2017, , .		2
89	Accelerating Geocomputation with Cloud Computing. , 2013, , 41-51.		2
90	Handling intensities of data, computation, concurrent access, and spatiotemporal patterns. , 2013, , 275-294.		0

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91	GEOSS Clearinghouse. , 2014, , 31-54.		0