Zhen Qian

🖥 **Personal Website** │ ᘔ **Google Scholar** │ Ⓡ **Research Gate**

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EDUCATION

➢ **M.S** in Geography   Overall GPA: 3.81/4.00   09/2020-06/2023

     (Ranked in the top 3 in China by geography subject)   (Ranked Top 3%)   (Expected)

     School of Geography, Nanjing Normal University

➢ **B.S** in Geography   Overall GPA: 3.77/4.00   09/2016-06/2020

     (First-class disciplines in Jiangsu Province, China)   (Ranked Top 1%)

     School of Geographical Science, Nantong University

RESERCH INTERESTS

GIScience, Remote Sensing, Spatial Data Mining, Machine learning, Deep Learning

PUBLICATIONS

Peer-reviewed paper

[11] **Qian, Z.**, Chen, M., Zhong, T., Zhang, F., Zhu, R., Zhang, Z., Zhang, K., Sun, Z. and Lü, G., 2022. Deep Roof Refiner: A detail-oriented deep learning network for refined delineation of roof structure lines using satellite imagery. International Journal of Applied Earth Observation and Geoinformation, 107, p.102680. *(IF 7.672, JCR Q1)* [PDF] [DOI]

[10] **Qian, Z.**, Liu, X., Tao, F. and Zhou, T., 2020. Identification of urban functional areas by coupling satellite images and taxi GPS trajectories. Remote Sensing, 12(15), p.2449. *(IF 5.349, JCR Q1)* [PDF] [DOI]

[9] **Qian, Z.**, Zhou, T., Tao, F., Fan, Z., Liu, H. and Lu, J., 2020. Cluster-Based Extraction Method of Entrances and Exits in AOI. Geography and Geo-Information Science, 36(2), pp.1-7. *(In Chinese, Chinese Core Journals)* [PDF] [DOI]

[8] **Qian, Z.**, Zhou, T., Ma, P., Tao, F. and Liu, H., 2019. A Detection Method for Passenger Safety Based on GIS. Journal of Transport Information and Safety, 37(4), pp.35-43. *(In Chinese, Chinese Core Journals)* [PDF] [DOI]

[7] **Qian, Z.**, Zhou, T., Kang, T., Fan, Z. and Lu, J., 2018. Study on Discrimination Method of Urban Road Congestion Based on Taxi. Logistics Engineering and Management, 40(02), pp.118-120+112. *(In Chinese)* [PDF] [DOI]

[6] Zhang, K., **Qian, Z.**, Yang, Y., Chen, M., Zhong, T., Zhu, R., Lv, G. and Yan, J., 2022. Using street view images to identify road noise barriers with ensemble classification model and geospatial analysis. Sustainable Cities and Society, 78, p.103598. *(IF 10.696, JCR Q1)* [PDF] [DOI]

[5] Zhang, Z., **Qian, Z.**, Zhong, T., Chen, M., Zhang, K., Yang, Y., Zhu, R., Zhang, F., Zhang, H., Zhou, F., Yu, J., Zhang, B., Lü, G. and Yan, J., 2022. Vectorized rooftop area data for 90 cities in China. Scientific Data, 9, 66. *(IF 8.501, JCR Q1)* [PDF] [DOI]

[4] Zhou, T., Liu, X., **Qian, Z.**, Chen, H. and Tao, F., 2020. Automatic identification of the social functions of areas of interest (AOIs) using the standard hour-day-spectrum approach. ISPRS International Journal of Geo-Information, 9(1), p.7. *(IF 3.099, JCR Q2)* [PDF] [DOI]

[3] Zhou, T., Liu, X., **Qian, Z.**, Chen, H. and Tao, F., 2019. Dynamic update and monitoring of AOI entrance via spatiotemporal clustering of drop-off points. Sustainability, 11(23), p.6870. *(IF 3.889, JCR Q2)* [PDF] [DOI]

[2] Zhang, K., Chen, M., Yang, Y., Zhong, T., Zhu, R., Zhang, F., **Qian, Z.**, Lü, G. and Yan, J., 2022. Quantifying the photovoltaic potential of highways in China. Applied Energy. *(IF: 11.446, JCR Q1)* Accepted

[1] Zhong, T., Zhang, K., Chen, M., Wang, Y., Zhu, R., Zhang, Z., Zhou, Z., **Qian, Z.**, Lv, G. and Yan, J., 2021. Assessment of solar photovoltaic potentials on urban noise barriers using street-view imagery. Renewable energy, 168, pp.181-194. *(IF 8.634, JCR Q1)* [PDF] [DOI]

Working paper

[2] **Qian, Z.**, Chen, M., Yang, Y., Zhong, T., Zhang, F., Zhu, R., Zhang, K., Zhang, Z., Sun, Z., Ma, P., Lü, G., Ye, Y. and Yan, J., 2022. Vectorized dataset of roadside noise barriers in China using street view imagery. Earth System Science Data, pp.1-30. *(Preprint, Major revision completed, IF 11.815, JCR Q1)* [PDF] [DOI]

[1] Zhang, Z., Chen, M., Zhong, T., Zhu, R., **Qian, Z.**, Zhang, F., Yang, Y., Zhang, K., Santi, P., Wang, K., Pu, Y., Tian, L., Lü, G., and Yan, J., 2022. Significant carbon mitigation potential of rooftop solar photovoltaics in China. Nature. Submitted

AWARDS & HONORS

Contests

➤	National Graduate Student Mathematical Modeling Competition	2020
	Second Prize, Team Leader	
➤	National Innovation and Entrepreneurship Competition of Intelligent Transportation	2019
	Second Prize	
➤	National Professional Software Engineering "Blue Bridge Cup" Design Contest	2019
	Third Prize, Individual	
➤	Jiangsu Provincial Professional Software Engineering "Blue Bridge Cup" Design Contest	2019
	First Prize, Individual	
➤	Beidou-Cup Adolescents Science & Technology Invention Contest in East China	2019
	Second Prize, Team Leader	
➤	COMAP's Mathematical Contest in Modeling	2018
	Meritorious Winner, Team Leader	
➤	National Undergraduate GIS Application Skills Contest	2018
	First Prize, Team Leader	
➤	National Innovation and Entrepreneurship Competition of Intelligent Transportation	2018
	Third Prize, Team Leader	
➤	Jiangsu Provincial Mapping and GIS Innovation and Entrepreneurship Competition	2018
	Second Prize, Team Leader	
➤	Jiangsu Provincial Computer Design Competition for College Students	2018
	Second Prize	
➤	National Undergraduate GIS Application Skills Contest	2017
	First Prize	
➤	Jiangsu Provincial Mapping and GIS Innovation and Entrepreneurship Competition	2017
	Grand Prize, Team Leader	

Scholarships

➤	First-class Scholarship in University for Postgraduates	2020 & 2021
	Ranked Top 3%	
➤	National Scholarship for Undergraduates	2018
	Ranked Top 1%	
➤	The Prince's Scholarship Funded by Social Enterprises for Undergraduates	2017 & 2019
	Ranked Top 1%	
➤	First-class Scholarship in University for Undergraduates	2017, 2018 & 2019
	Ranked Top 1%	

Awards

➤	Outstanding Communist Youth League Student Leader Award in University for Postgraduates	2022
➤	Outstanding Student Leader Award in University for Postgraduates	2021
➤	Jiangsu Provincial Excellent Undergraduate Thesis Award	2021
➤	Jiangsu Provincial Excellent Undergraduate Thesis Award of Surveying and Mapping	2020
➤	Jiangsu Provincial Outstanding Student Leaders for Undergraduates	2019

➢ Merit Student Pioneer in University for Undergraduates	2018
➢ Outstanding Student Leaders in University for Undergraduates	2017 & 2019

EXPERIENCES

Research Projects

➢ Jiangsu Provincial Graduate Research and Practice Innovation Program: "*Research on spatial intelligence analysis method considering knowledge of geographic mechanisms*", funded by Department of Education, Jiangsu Province, P.R. China, **Individual**	2022-2023
➢ Jiangsu Provincial College Students' Innovative Entrepreneurial Training Plan Program: "*Research on travel behavior supervision method based on artificial intelligence technology*", funded by Department of Education, Jiangsu Province, P.R. China, **Team leader**	2018-2019
➢ National College Students' Innovative Entrepreneurial Training Plan Program: "*Design and application of intelligent scenic spot regulation model based on visitor trajectory*", funded by Ministry of Education, P.R. China, **Core member and developer**	2017-2018

Academic Activities

➢ Oral presentation at the 8th National Academic Conference on Virtual Geographic Environment, titled "*Roof structure line delineation based on deep learning and high-resolution satellite imagery*", Ganzhou, Jiangxi Province, P.R. China	07/2022

Teaching Experiences

➢ Teaching assistant for "*Spatio-temporal big data analysis methods*" and taught class session "*Spatial intelligence analysis for big data in the new era*"	11/2021
➢ Teaching assistant for "*Spatial data structure*"	09/2018
➢ Teaching assistant for "*Fundamentals of GIS algorithms*"	05/2018
➢ Teaching assistant for "*C/C++ language programming*"	09/2017

SKILLS & ACTIVITIES

Language

Mandarin (Native), English (Professional Proficiency; IELTS score: 6.5)

Programming

Python (Proficient, including OpenCV, Pytorch, Numpy, Pandas, Matplotlib, GDAL, etc.), R, Matlab, Server (MacOS/Window/Ubuntu), C++, Java, Html/Css/Javascript, etc.

Software

ArcGIS, QGIS, SPSS, Envi, Photoshop, EndNote, Microsoft Office, etc.

Certifications & Training

➢ Data science and face recognition algorithms winter camp (by MEGVII company, 2 weeks)

➢ National geographic analysis model training (by Nanjing Normal University, 1 month)

➢ Frontiers of Spatial Econometrics summer camp (by Peking University, 2 weeks)