Zhen Qian

🖥 **Personal Website** | ℊ **Google Scholar** | ℝᴳ **Research Gate** | ✉ **Email**

Address: Nanjing Normal University, No.1, Wenyuan Road, Xianlin University District, Nanjing, China

EDUCATION

- **M.S** in Cartography and Geographic Information System   Overall GPA: 3.81/4.0   Sept., 2020-Jun., 2023
  (First-class disciplines in China, ranked Top 1%)   (Ranked Top 3%)   (Expected)
  School of Geography, Nanjing Normal University
- **B.S** in Geographic Information Science   Overall GPA: 3.77/4.0   Sept., 2016-Jun., 2020
  (First-class disciplines in Jiangsu Province)   (Ranked Top 1%)
  School of Geographical Science, Nantong University

RESERCH INTERESTS

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

PUBLICATIONS

- **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, Under Review, IF 11.815, JCR Q1)* [PDF] [DOI]

- **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]

- **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]

- **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]

- **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]

- **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]

- 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]

- 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., Yan, J., 2022. Vectorized rooftop area data for 90 cities in China. Scientific Data, 9, 66. *(IF 8.501, JCR Q1)* [PDF] [DOI]

- 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]

- 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]

- 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]

HONORS & AWARDS

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   July, 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*"   Nov., 2021
- Teaching assistant for "*Spatial data structure*"   Sept., 2018
- Teaching assistant for "*Fundamentals of GIS algorithms*"   May, 2018
- Teaching assistant for "*C/C++ language programming*"   Sept., 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 (2 weeks), National geographic analysis model training (1 month),

Peking University Graduate Summer School "Frontiers of Spatial Econometrics (2 weeks)