

ZONGRONG (JASPER). LI

- Department of Geography • College of Arts & Sciences • Texas A&M University
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EDUCATION

Texas A&M University

College Station, TX

Ph.D. in Geography

GPA: 4/4

Advisor: Prof. Lei Zou, TAMU GEAR Lab

Aug. 2025 - Expected May. 2029

University of Southern California

Los Angeles, CA

Master of Science, Spatial Data Science (Rank 1%)

GPA: 3.92/4

Advisor: Prof. Siqin Wang & Prof. Yi Qi, USC Spatial Sciences Institute

Aug. 2023- May. 2025

Nanjing Audit University

Nanjing, CN

Bachelor of Economics, Finance (Rank 10%)

GPA: 3.53/5

Sep. 2018- Jun. 2022

RESEARCH INTERESTS

- Generative Digital Twin
- Built Indoor Environment
- Geographic Information Science (GIScience)
- 3D Urban Modeling
- Human-Environmental in 3D Urban Space
- Geospatial Artificial Intelligence (GeoAI)

PUBLICATION

[1] **Li, Z.**, Zou, L*. Yang, M& Ma, H. (2026). Benchmarking Large Language Models for Scientific Discovery in GIScience (*Ongoing*)

[2] **Li, Z& Zou, L***.(2026). Visual Access to Urban Greenery from Indoor Spaces: A 3D Window View Approach for Large U.S. Metropolitan Areas. (*Ongoing*)

[3] **Li, Z.**, **Li, H.**, Yang, Y., Wang, S*& Zhu, Y. (2026). Integrating Earth Observation Data into the Tri-environmental Evaluation of the Economic Cost of Natural Disasters: A Case Study of 2025 LA wildfire. *International Journal of Applied Earth Observation and Geoinformation*. (*Minor Revision; Revised and Resubmitted; Currently Under Second Round of Review*) <https://arxiv.org/abs/2505.01721> (**IF=8.6, JCR Q1**)

[4] Yang, M., Zou, L*., Ma, Hong., **Li, Z& Li, W.** (2025). The Geography of Insufficient Sleep in the Contiguous United States (CONUS). <https://eartharxiv.org/repository/view/10810/>

[5] Wang, S*., Wang, Z., Huang, X., Liu, L., Shi, Z& **Li, Z.** (2025). Benchmark evaluation of large language models for human versus AI perception on urban environment through street view images. *Landscape and Urban Planning* (*Under Review*) (**IF=9.2, JCR Q1**)

[6] **Li, Z.**, Zhang, Fan., Dai, S& Zhao, Wu*. (2025). Bridging Street View Coverage Disparities through Geographic Style-Preserving Generation from Satellite View. *ISPRS Journal of Photogrammetry and Remote Sensing*(*Under Second Review*) (**IF=12.2, JCR Q1**)

Corresponding author*, Co-first authors

- [7] Li, Z., Su, Y., Filip, B & Zhao, W*. (2025). BuildingMultiView: powering multi-scale building characterization with large language models and Multi-perspective imagery. *International Journal of Applied Earth Observation and Geoinformation*, 146, 105034. <https://doi.org/10.1016/j.jag.2025.105034> (IF=8.6, JCR Q1)
- [8] Li, Z., Xu, J., Wang, S*., Wu, Y., & Li, H. (2025). StreetViewLLM: Extracting Geospatial Information Using Multimodal Chain-of-Thought Large Language Models. *International Journal of Applied Earth Observation and Geoinformation*. (Under Second Round of Review) <https://arxiv.org/abs/2411.14476> (IF=8.6, JCR Q1)
- [9] Li, Z., Su, Y., Zhu, C., & Zhao, W*. (2024). BuildingView: Constructing Urban Building Exteriors Databases with Street View Imagery and Multimodal Large Language Model. (Accepted to ACM SpatialDI 2025) <https://arxiv.org/abs/2409.19527>
- [10] Li, Z., Li, Q., Li, H., Wang, S*., & Qi, Y*. (2024). Multi-source tri-environmental conceptual framework for fire impact analysis. *Urban Info* 3, 31. <https://doi.org/10.1007/s44212-024-00063-7>

RESEARCH EXPERIENCE

Texas A&M University GEAR Lab & Google

College Station, TX

Research Assistant – Mentor: Prof. Lei Zou & Dr. Hongxu Ma

Aug. 2025 to Present

- Develops GIScholarBench, a large-scale LLM benchmark for GIScience literature retrieval and knowledge discovery, curating 17,000+ papers from 25 core journals (2020–2025) and automating data collection through CrossRef, OpenAlex, and Semantic Scholar APIs.
- Evaluates retrieval, citation-linking, and hypothesis-generation capabilities across frontier LLMs (OpenAI, Gemini, xAI) to analyze human–AI research behavior, scientific reasoning bias, and novelty-driven knowledge discovery.
- Funded by TAMIDS GAIRE Grant (2026–2027, \$7,000) for “GIScholarBench: A Systematic Evaluation of Generative AI for Literature Retrieval and Knowledge Discovery in GIScience and Beyond.”

The Hong Kong University of Science and Technology (Guangzhou)

Remote

Research Assistant – Mentor: Prof. Wufan Zhao

Jun. 2024 to Sep. 2025

- Develop BuildingView: constructing urban building exterior databases with Street View Imagery and Multimodal Large Language Models, integrating OpenStreetMap, Google Street View, and remote sensing data to create databases for cities like New York, Amsterdam, and Singapore;
- Collect 5 years' worth of urban building exterior indicators from scholars' research to better understand fairness in the built environment across cities.
- Expand the database using multi-source data, including street view imagery and remote sensing, and validate findings with data from third-party real estate transaction platforms.

University of Southern California

Los Angeles, CA

Research Assistant – Mentors: Prof. Siqin Wang, Prof. Yi Qi

Sep. 2023 to May. 2025

- Develop a Multi-source Tri-environmental Conceptual Framework for Fire Impact Analysis, integrating optical, thermal, and demographic data to provide a comprehensive estimation of the 2023 Hawaii wildfire damages;
- Create the StreetViewLLM tool, utilizing multimodal Chain-of-Thought reasoning in large language models for efficient geospatial information extraction;
- Leverage large language models' generative capabilities to enhance the accuracy and speed of wildfire damage predictions through advanced geospatial computation techniques.

The Hong Kong Polytechnic University

Remote

Research Assistant – Mentor: Prof. Zhiwei Li

Sep. 2023 to Aug. 2024

- Engaged in a comprehensive study evaluating the impact of floods on megacities globally, focusing on identifying affected regions and populations;

- Utilized Google Earth Engine (GEE) for data acquisition and analysis, leveraging tools such as VIIRS nighttime light data, and global flood databases;
- Analyzed recovery times post-flood events using changes in nighttime light data, assessing regional disparities in vulnerability and flood response.

Nanjing Audit University

Nanjing, CN

Research Assistant – Mentor: Prof. Chong Peng

Sep. 2019 to May. 2021

- Analyzed over 3 terabytes of urban data, covering aspects like traffic patterns, housing densities, and public amenities.
- Utilized GIS to map out inefficiencies in urban transportation networks, revealing areas with a 20% longer commute time than the city average.
- Assisted local governance bodies in setting up a geospatial data warehouse, streamlining the data collection and decision-making process.

INDUSTRY EXPERIENCE

City of Hope

Los Angeles, CA

Data Science Intern – Mentor: Dr. Jay Yang

Jan. 2024 to Sep. 2024

- Engaged in a pivotal role within a multidisciplinary team to evaluate deep learning models, such as Convolutional Neural Networks (CNNs) and Graph Neural Networks (GNNs), applied to satellite imagery for urban health data assessment.
- Focused on the intersection of urban form, structural racism, and environmental risks, contributing to the development of models that predict disparities in air pollution and urban heat islands;
- Validated methodologies through comprehensive demographic data analysis, with a record of achieving high accuracy in distinguishing socio-economic regions using unsupervised learning techniques.

NetEase Youdao

Beijing, CN

Data Analyst Intern – Business Analysis Department

Jan. 2023 to Apr. 2023

- Cleaned and standardized data from sales teams in more than 50 regions, education quality data from more than 2,000 colleges;
- Created a Tableau data map to help the sales team realize that localized and customized sales may significantly increase sales conversion by 30% within an acceptable cost range;
- Completed the TikTok online education industry ecological report, and helped the product team enter the relevant market for preliminary research.

BDO

Shanghai, CN

Audit Intern – Energy Company Group

Dec. 2022 to Jan. 2022

- Engaged in the annual audit of an energy company and 7 subsidiaries in the real estate and textile industry;
- Audited accounts such as fixed assets, intangible assets, profits, and account receivables, prepared 25 confirmation letters, conducted 7 fixed asset audits, and drafted 25 working papers;
- Interviewed financial executives about intern control and business process, spotted financial risks related to lack of management, and examined statements of cash flow and financial indicators to support going concern assumptions.

TEACHING EXPERIENCE

Texas A&M University

College Station, TX

Teaching Assistant – Courses: 25 Fall GEOG-391/659 GEO Database, 25 Fall GEOG-392/500: GIS Programming & 26 Spring GEOG-475 Advanced GIS

Aug. 2025 to Present

- Conduct laboratory sessions, assisting students with hands-on exercises and clarifying course materials.
- Grade assignments, lab reports, and exams as directed by the course instructor, ensuring fairness and accuracy.
- Proctor exams and provide additional support during assessments to maintain academic integrity.

University of Southern California

Los Angeles, CA

Graduate Grader – Courses: SSCI 581 Concepts for Spatial Thinking & SSCI-583: Spatial Analysis and Modeling
 Jan. 2024 to May. 2025

- Graded assignments and exams as directed by the course instructor, ensuring accurate and timely feedback.
- Attend weekly meetings with the instructor to discuss grading criteria and adjust approaches as needed.
- Provided additional grading support for projects and exams, ensuring consistency in evaluation.

HONOR AND CERTIFICATE

2026 AAG International Geographic Information Fund (\$1200)	February 2026
2026 AAG AGSG Annual Meeting Award (\$202)	February 2026
2025 TAMU Lechner Graduate Scholarship (\$1000)	August 2025
2025 TAMU Dean's Doctoral Fellowship (\$40000)	August 2025
2025 Lifetime Membership — Nu Theta Chapter, Gamma Theta Upsilon	May 2025
2025 AAG GISS Student Paper Competition Honorable Mention (\$300)	March 2025
2025 EIP Student of the Year Award (\$500)	March 2025
2024 LA GeoSpatial Summit - Story Map Most Suitably Applied Analysis Methodology Award	February 2025
2024 Fall GSG Professional Development Fund (\$500)	February 2025
Finalist for the GISS Student Honors Paper Competition	December 2024
2024 LA GeoSpatial Summit - Story Map Participation Award	February 2024
Bronze medal in Kaggle's Child Mind Institute - Detect Sleep States	January 2023
"Outstanding Graduates" (Top 5%)	May 2022
Nanjing Audit University Outstanding Student Comprehensive Scholarship (Top 5%)	October 2021
"Internet+" University Student Innovation and Entrepreneurship Competition Campus Selection (Second Prize)	June 2021
"Advanced Individual in Social Practice"(Top 10%)	May 2021
World Chinese Debating Championship Jiangsu Regional Champion	November 2019
Nanjing Audit University Debate Tournament Second Place	May 2019

PARTICIPATION

2026 AAG Annual Meeting* - Organizer/Presenter

Organizing Session : [GISER Symposium: Human-Environment Interactions in Digital Twin and 3D Urban Space](#); [GISER Symposium: Past, present, and future of GIScience \(Panel\)](#); [GISER Symposium: Less Is More? The Value of Small Geospatial Data in the Era of Big Data and AI](#)

Talk: [Seeing Green from Indoor in 3D: How Urban Form and Vegetation Shape Window-Level Views of Nature](#)

2025 Texas A&M University GIS Day - Presenter

Talk: Bridging Street View Coverage Disparities through Geographic Style-Preserving Generation from Satellite View

2025 AAG Annual Meeting - Presenter

Talk: [StreetViewLLM: Extracting Geospatial Information Using Multimodal Chain-of-Thought Large Language Models](#)

2025 LA GeoSpatial Summit - Presenter

Talk: [Transit Triumph or Traffic Tangle? Evaluating Los Angeles' Transit Equity for the 2028 Car-Free Olympics](#)

2025 Young Scholar Symposium on Spatiotemporal Data Science - Presenter

Talk: [Multi-source tri-environmental conceptual framework for fire impact analysis](#)

2024 LA GeoSpatial Summit - Presenter

Talk: [PARADISE ON FIRE 2023 Hawaii Wildfire: Cost-Effective Rapid Wildfire Analysis](#)

2024 Esri User Conference - Participant

2024 Esri Fall Education Open House - Participant

ACADEMIC SERVICES

Student Representative

AAG Applied Geography Specialty Group (2026-2029)

Student Co-founder

[AutonomousGeoAI4Science](#): an open research and learning community for people who are passionate about AI, geospatial science, and scientific discovery.

Invited Reviews

Computational Urban Science (3)

International Journal of Applied Earth Observation and Geoinformation (1)

Open Source Repositories

[DeepLabV3Plus for Satellite Image Segmentation - OpenEarthMap](#)

[Foursquare Open Source Places - POI Data Processing](#)

[Dasymetric Mapper: High-Resolution Population Density Layer Generation](#)

ADDITIONAL INFORMATION

Skills: Python; JavaScript; PyTorch; ArcGIS Pro; GEE

Expertise: Large Vision-Language Model Agents Development; 3D Web GIS Development