

Jiyoung Lee

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Research Interests

Geospatial Artificial Intelligence (GeoAI); Geospatial analysis; Geo-visualization; Web GIS; Remote Sensing; Crime; Flood; Health; Urban Resilience Vulnerability; Risk Assessment

Teaching Interests

GeoAI; GIS; GIS Application (e.g., Crime, Planning, Disaster, Health); Programming (e.g., Python, JavaScript, HTML, CSS); Geo-visualization; Spatial Data Science; Remote Sensing

Educations

Aug 2018 – Aug 2024	Louisiana State University (LSU), Baton Rouge, LA, USA Ph.D. in Geography Advisor: Dr. Michael Leitner Dissertation: Expanding Research in Environmental Criminology with Digital Imagery and Geospatial Methods
Aug 2020 – Dec 2022	Louisiana State University, Baton Rouge, LA, USA M.S. in Computer Science Advisor: Dr. Jinwei Ye Master Project: Analysis of Theft Hotspots in Environmental Criminology Theory Using Machine Learning and Google Street Image
Sep 2016 – Feb 2018	Sungshin Women's University (SWU), Seoul, Republic of Korea (ROK) M.A. in Geography Advisor: Dr. Jaejoon Jeong Thesis: Implementation of an Interactive Web Map Applicable in Spatio-temporal Data Mapping
Mar 2013 – Aug 2016	Sungshin Women's University, Seoul, ROK B.A. <i>Major in</i> Geography <i>Minor in</i> Information Technology, Computer Software

Appointments

• State Government

2025 August – Present	Geographic Information System Informatician II, Nebraska Department of Health and Human Services (DHHS), Lincoln, NE, USA
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• Institutions

2024 Fall – 2025 Summer	Postdoctoral Researcher, Community and Regional Planning Program, University of Nebraska – Lincoln (UNL), Lincoln, NE, USA
2024 Fall – 2025 Spring	Lecturer, Community and Regional Planning Program, UNL
2024 Spring	Graduate Teaching Assistant, Department of Geography and Anthropology, LSU
2022 Fall – 2023 Fall	Graduate Research Assistant, LaHouse, LSU AgCenter, LA, USA
2021 Summer	Visiting Scholar, Carinthia University of Applied Sciences, Villach, Austria
2020 Fall – 2022 Summer	Graduate Research Assistant, Department of Construction Management, LSU

2018 Fall – 2020 Spring	Graduate Teaching Assistant, Department of Geography and Anthropology, LSU
2018 Spring	Lecturer, College of Space Environment, Sangmyung University, Seoul, ROK
2016 Fall – Spring 2018	Graduate Research Assistant, Department of Geography, SWU
2014 Spring – 2016 Spring	Undergraduate Research Assistant, Department of Geography, SWU
2014 Spring – 2014 Fall	Intern, Korean Geography Institute, SWU

• Professional Organizations

2020 Fall – 2021 Spring	Graduate Research Scholar, Louisiana Sea Grant's Program, Louisiana SeaGrant, LA, USA
2017 – 2018	Civilian Advisory Committee, National Spatial Data, Ministry of Land, Infrastructure, and Transport, Sejong, ROK
2015	Committee Member, Young Leaders Club for Ecotourism, Ministry of Environment, Sejong, ROK

Grants

Jan 2026 – Dec 2026	Co-PI. Mid-America Transportation Center, “Pedestrian Safety and Streetscape Features: Innovative GeoAI-Based Approach Using Street View Imagery,” PI: Yunwoo Nam
Jan 2025 – Aug 2026	Co-PI. Southeast Nebraska Development District (SEND), “Southeast Nebraska Infrastructure Inventory,” PI: Abigail Cochran
Dec 2023 – Jun 2024	Co-PI. Underscore, “Research on effectiveness analysis of women’s safety policy using spatial analysis: Focusing on Seoul Metropolitan City,” PI: Yoon Jeong Jang
Aug 2021 – Dec 2021	PI. Gyeonggi Research Institute (GRI), “An Analysis of Quality of Life with Policy Suggestions for the Elderly in Gyeonggi-do”
May 2021 – Aug 2021	PI. Austrian Marshall Plan Foundation, “Spatiotemporal Analysis of Nighttime Crimes in Vienna, Austria”
July 2014 – Dec 2014	PI. Seoul Metropolitan Government, “Journeys in Geography: From Field Trips to Visual Storytelling”

Publications

• Book

2025	[1]	Korea Association for Policy Studies (Noh, S., Kyung, K., Ko, Y., Kim, S., Kim, S., Kim, Y., Kim, J., Nam, Y., Park, J., Park, H., Oh, S., Lee, S., Lee, Y., Lee, J., Lee, J., Lee, J. , Jeon, H., Choi, I., & Hwang, E.) <i>Reimagining the Future of K-Cities: Pohang Rising Again, A Region Growing Together</i> . Yoonsungsa. 9791193058220 (KOREAN)
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• Encyclopedias

In Review	[2]	Leitner, M., Kounadi, O., Ristea, A., Lee, J. Crime Mapping and Spatial Data. <i>Oxford Research Encyclopedia of Criminology and Criminal Justice</i>
2025	[1]	Lee, J. , Leitner, M. Geography and Crime. In: Warf, B. (eds) <i>The Encyclopedia of Human Geography</i> . Springer, Cham. 10.1007/978-3-031-25900-5_147-1

• Peer-reviewed Journal Papers

Accepted, in press	[13]	Lee, J. , Jahangeer, J., Andrews, J., Mason, J.B., Nam, Y., Tang, Z., 2026, Tracking Residential Development and Flood Risk in Eastern Nebraska: A Geo-AI Imagery Change Detection Approach, <i>Spatial Information Research</i> .
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- 2026 [12] Jahan, R.N., Mason, J.B., Jahangeer, J., **Lee, J.**, Joshi, P., Tang, Z., 2026, Uneven Recoveries: A Deep Learning Assessment of the 2019 Midwest Floods and Their Impact on Rural Communities, *npj Natural Hazards*. [10.1038/s44304-026-00171-1](https://doi.org/10.1038/s44304-026-00171-1)
- Accepted, in press [11] Noor, M. A., Mason, J. B., Singh, R., Jahangeer, J., **Lee, J.**, Andrews, J., Khandokar, A., Jahan, N. R., Joshi, P., Nam, Y., & Tang, Z. Evaluating the Preparedness of Local Zoning Regulations for Flood Risk Reduction in the Most Affected Local Jurisdictions in Nebraska. *Journal of Urban Planning and Development*.
- 2025 [10] Andrew, J., **Lee, J.**, Mason, J. B., Nam, Y., & Tang, Z. Associations between owner proximity and parcel-level flood exposure: Evidence from Douglas County, Nebraska. *International Journal of Disaster Risk Reduction*, 105795. [10.1016/j.ijdr.2025.105795](https://doi.org/10.1016/j.ijdr.2025.105795)
- 2025 [9] Jahangeer, J., Joshi, P., Singh, R., **Lee, J.**, & Tang, Z. Mapping Watershed Wetness Dynamics and Prioritizing Potential Agricultural Sites for Wetland Conservation Programs in Nebraska. *Conservation Science and Practice*. [10.1111/csp.2.70151](https://doi.org/10.1111/csp.2.70151)
- 2025 [8] Singh, R., Mason, J., Jahangeer, **Lee, J.**, Andrews, J., Jahan, R. N., Noor, M. A., Nam, Y., Jiang, Y. J., & Tang, Z. Assessing Flood Mitigation Preparedness in Nebraska's Rural Communities through Local Comprehensive Plans. *Journal of Flood Risk Management*, 18:e70082. [10.1111/jfr.3.70082](https://doi.org/10.1111/jfr.3.70082)
- 2025 [7] Andrew, J., **Lee, J.**, Mason, J. B., Singh, R., Jahangeer, J., Nam, Y., Jiang, Y., & Tang, Z. Spatial Disparities in Flood Risk Exposure: A Structure-Level Analysis of Mobile Home Parks in Eastern Nebraska, *Natural Hazards*. [10.1007/s11069-025-07375-0](https://doi.org/10.1007/s11069-025-07375-0)
- 2025 [6] Jahan, R. N., Jahangeer, J., Singh, R. **Lee, J.**, & Tang, Z. Assessing State-Level Wetland Program Plans: Progress, Challenges, and Variability in Achieving the US National Goal of “No Net Loss” of Wetlands, *Journal of Environmental Engineering*. [10.1061/JOEEDU.EEENG-8107](https://doi.org/10.1061/JOEEDU.EEENG-8107)
- 2024 [5] **Lee, J.**, Leitner, M., & Paulus, G. Spatiotemporal Analysis of Nighttime Crimes in Vienna, Austria, *International Journal of Geo-Information*. [10.3390/ijgi13070247](https://doi.org/10.3390/ijgi13070247)
- 2024 [4] Kim, K., **Lee, J.**, Ahn, Y., & Jeong, J. Changes in Spatiotemporal Patterns of Crimes During the Covid-19 Pandemic: A Case Study of Atlanta, Georgia, *Applied Spatial Analysis and Policy*. [10.1007/s12061-023-09531-0](https://doi.org/10.1007/s12061-023-09531-0)
- 2023 [3] Friedland, C. J., Lee, Y., Mostafiz, R., **Lee, J.**, Mithila, S. P., Rohli, R. V., Gnan, E., & Farris, M. FloodSafeHome: Evaluating Benefits and Savings of Freeboard for Improved Decision-Making in Flood Risk Mitigation, *Frontiers in Communication, section Disaster Communications*. [10.3389/fcomm.2023.1060901](https://doi.org/10.3389/fcomm.2023.1060901)
- 2019 [2] Lee, J., & **Lee, J.** Analysis of Practical Sharing City via Big Data about Shared Bike in Seoul City, *Journal of the Korean Association of Professional Geographers*, 53(4), 509-520 (KOREAN)
<https://www.dbpia.co.kr/Journal/articleDetail?nodeId=NODE11112859>
- 2016 [1] Rhee, H., **Lee, J.**, & Park, K. Climate Disaster of the Joseon Dynasty: at Soonjo Dynasty, *Journal of Applied Geography*, Vol.33, pp 37-57 (KOREAN)
<https://www.dbpia.co.kr/Journal/articleDetail?nodeId=NODE07158489>

• Peer-reviewed Journal Papers - In review

- In Review [7] Andrews, J., **Lee, J.**, Mason, J. B., Nam, Y., & Tang, Z. The Influence of Owner Proximity on Flood Exposure: Evidence from Douglas County, Nebraska, *Land Use Policy*
- In Review [6] Joshi, P. Mason, J., Andrews, J., Jahangeer, J. **Lee, J.**, Singh, R., Khandokar, A., Noor, M. A., Jahan, R. N., Nam, Y., & Tang, Z. Balancing Development and Resilience: Preserving Croplands and Wetlands to Mitigate Flood Risk in Rural Urbanizing Landscapes, *Natural Hazards*

- In Review [5] Andrews, J., **Lee, J.**, Mason, J. B., Nam, Y., & Tang, Z. A Novel Approach to Probabilistic Disaggregation of National Flood Insurance Program (NFIP) Claims onto Building Footprints, *Risk Analysis*
- In Review [4] Khandokar, A., Mason, J. B., Singh, R., **Lee, J.**, Andrews, J., Jahangeer, J., Jahan, N. R., Noor, M. A., Joshi, P., Nam, Y., & Tang, Z. Social Media's Role in Rural Flood Risk Management: An Empirical Study from the Most Impacted Regions after 2019 Flood in Nebraska. *Weather, Climate, and Society*
- In Review [3] Jang, Y., J., O'Connell, H., A., & **Lee, J.** The Effectiveness of Policy Aimed at Securing Women's Safety: A Spatial Analysis in Seoul Metropolitan City, *Asian Journal of Criminology*
- In Review [2] Oh, H., Adcox, W., & **Lee, J.** Tourism, Gentrification, and Homicide in New Orleans after Hurricane Katrina. *Criminology & Criminal Justice*
- In Review [1] **Lee, J.**, & Leitner, M. Street Crime Analysis in Baton Rouge, LA: A Google Street View and Machine Learning Approach, *Cities*

• Reports

- 2025 [2] Tang, Z., Haigh, T., Mason, J. B., Jahangeer, J., & **Lee, J.** "Communities and the Built Environment." Understanding and Assessing Climate Change: Preparing for Nebraska's Future—2024 Climate Change Impact Assessment Report. Lincoln: University of Nebraska–Lincoln, Nebraska State Climate Office, 2025.
[10.32873/unl.dc.oth.028](https://doi.org/10.32873/unl.dc.oth.028)
- 2021 [1] **Lee, J.**, Lee, S. An Analysis of Quality of Life with Policy Suggestions for the Elderly in Gyeonggi-do, *Gyeonggi Research Institute* (KOREAN)

Research Experiences

• Postdoctoral Researcher

- 2025 – 2025 Southeast Nebraska Infrastructure Inventory, UNL (Co-PI)
- 2024 – 2025 Disaster Risk Awareness and Housing Resilience Planning for the Most Impacted and Distressed (HUD-MID) Areas in Nebraska, UNL
- 2024 – 2025 Enhance Resilience Capacity for Disadvantaged Communities and Tribes in the Midwest Region through Promoting Post-disaster Recovery Effectiveness in Social Equity and Economic Development, UNL

• Research Assistant (RA)

- 2020 – 2023 Incentives and Barriers to Increased Freeboard to Enhance Flood Resilience; Southeast Louisiana Perspectives, LaHouse, LSU AgCenter
- 2020 – 2022 How Smarter Decision-Making by Renters and Homebuyers Will Increase Coastal Resilience, LSU
- 2020 – 2022 Cost Effectiveness of CDBG-DR: Flood Mitigation and Vulnerable Populations, LSU
- 2017 – 2018 Analysis of Public Spatial Data Portal Service for Considering Map-Making Procedures, SWU
- 2016 – 2018 Regional Productivity Comparison Using GRDP and Income Tax, SWU
- 2016 – 2018 GIS Data Acquisition for Secondary School Atlas, SWU
- 2016 – 2017 Comparison and Analysis of Census Population and Resident Registration Population, SWU
- 2016 – 2017 Comparison and Analysis of Census Population and Resident Registration Population, SWU
- 2016 Mapping for Medical Institutions, Kyung Hee University, Seoul, ROK

2016	Selecting Vulnerable Areas of the Medical Services, Kyung Hee University
2016	Representation of the Historical and Geographical Environment through the Reconstruction of Administrative Districts and Traffic Networks in the Joseon Period, Foundation Research Support Project in Korean Studies, Seoul, ROK
2015 – 2016	Improvement Schemes for Small-Scale National Maps of Korea, SWU
2015	Thematic Map Making for Atlas Publication, GeoDream Co., Seoul, ROK
2014	Analysis of Errors in Map on Social Studies Textbook High School, SWU

Teaching Experiences

• Academic Instructor

2025 Spring	[CRPL 432/832] Advanced Spatial Analysis with GIS, UNL
2024 Fall	[CRPL 840] Planning Methods and Analysis, UNL
2018 Apr – May	[SP0018] Geovisualization of Spatial Information, Sangmyung University, Seoul, ROK
2018 Apr – May	[SP0012] Introduction to Remote Sensing and Photogrammetry, Sangmyung University
2018 Apr – May	[SP0024] Remotely Sensed Image Analysis, Sangmyung University

• Guest Lecturer

2025 Fall	ArcGIS Story Map for Planning in [CRPL 840], UNL
2024 Spring	The Aerial View API (Secondary data source exercise) in [GEOG 4049], LSU
2022 Fall	Spatiotemporal Analysis of Nighttime Crimes in [GEOG 4043], LSU
2017 Spring	Base GIS Workshop, SWU

• Teaching Assistant (TA)

2024 Spring	[GEOG 4049] Geospatial Applications of Small Unoccupied Aircraft Systems, LSU
2024 Spring	[GEOG 4020] Aerial Photo Interpretation and Image Processing, LSU
2018 Fall – 2020 Spring	[GEOG 2051] Physical Geography: Land and Water Systems, Plant and Animal Realms, LSU

Presentations

• Invited Talks

2025	[4]	Tang, Z., Mason, B.J., Nam, Y., Lee, J. , Singh, R., Andrews, J., Noor, M.A., Jahan, R.N., Khandokar, A., Joshi, P., Jahangeer, J., 2025, Promoting Integrating Planning for Flood Mitigation and Community Resilience, <i>League of Nebraska Municipalities-2025 Midwinter Conference</i> , Lincoln, NE, USA
2024	[3]	Lee, J. , Jarhan, S., Huang, Y., Yang, Y., & Simpson, C. Introduction to the GeoAI Foundation Model and Its Application, <i>an Integrative Discovery Environment (I-GUIDE) Virtual Consulting Office Session</i> , Virtual
2023	[2]	Leitner, M. & Lee, J. Temporal Approximation Methods for Crime Data that Possess Imprecise Time Stamps, <i>International Association of Crime Analysts (IACA) 2023 Conference</i> , Grapevine, TX, USA
2023	[1]	Lee, J. & Leitner, M. Crime Analysis Using Google Street Map Images and Machine Learning Techniques, <i>International Association of Crime Analysts (IACA) 2023 Conference</i> , Grapevine, TX, USA

- Oral Presentations

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| 2025 | [24] | Lee, J. , Cao, H., Tagnan, J., Guo, L., Wang, W., & Niu, Y. Quantifying Traffic Congestion for Resilient Road Network Management in Texas, <i>Texas A&M CyberTraining Summer School</i> , Virtual |
| 2025 | [23] | Andrews, J., Hollman, A., & Lee, J. What Predicts Broadband Usage? A Comparison of Computer Vision and Rural Urban Typology Machine Learning Models, TPRC53 2025, Washington, District of Columbia, USA |
| 2025 | [22] | Lee, J. , & Nam, Y. Crime Analysis with Google Street View Images and Machine Learning Techniques & Using AI and Geospatial Technology to Inventory ADA Curb Ramps in Douglas County, <i>2025 Nebraska GIS Symposium</i> , Lincoln, NE, USA |
| 2025 | [21] | Lee, J. , & Andrews, J., Nam, Y., & Tang, Z. Leveraging Geo-AI for Monitoring and Assessing Conservation Land Conditions in Nebraska & Using Geo-AI to Map Flood Risk in Residential Areas of Eastern Nebraska, <i>2025 Nebraska GIS Symposium</i> , Lincoln, NE, USA |
| 2025 | [20] | Lee, J. , Andrew, J., Li, C., Nam, Y., Tang, Z. Using GeoAI to Map Residential Development Patterns in At-Risk Flood Zones in Eastern Nebraska, <i>2025 Annual Meeting of AAG</i> , Detroit, MI, USA |
| 2025 | [19] | Andrews, J., Lee, J. , Li, C., Nam, Y., Tang, Z. Spatial Disparities in Flood Risk Exposure: A Structure-Level Analysis of Mobile Home Parks in Eastern Nebraska, <i>2025 Annual Meeting of AAG</i> , Detroit, MI, USA |
| 2025 | [18] | Lee, J. , Andrew, J., Nam, Y., Tang, Z. Exploring Residential Patterns in Eastern Nebraska's Flood Zones Through GeoAI, <i>2025 Nebraska Planning Conference</i> , Kearney, NE, USA |
| 2025 | [17] | Lee, J. , Nam, Y. Crime and Urban Design: Exploring the Influence of the Built Environment, <i>2025 Nebraska Planning Conference</i> , Kearney, NE, USA |
| 2024 | [16] | Andrews, J., Lee, J. , Mason, J. B., Nam, Y., Jiang, Y., Tang, Z. Disaster Risk Awareness and Housing Resilience Planning for the Most Impacted and Distressed (HUD-MID) areas in Nebraska, <i>2024 Nebraska Water Conference</i> , Lincoln, NE, USA |
| 2024 | [15] | Singh, R., Mason, J. B., Jahangeer, J., Jahan, R. N., Lee, J. , Andrews, J., Nam, Y., Jiang, Y., Tang, Z. Learning from 2019's Flood Lessons: Evaluating Local Comprehensive Plans' Preparedness for Flood Risk Reduction in Nebraska, <i>2024 Annual Conference of Nebraska Floodplain and Stormwater Managers Association</i> , Kerney, NE, USA |
| 2024 | [14] | Lee, J. , & Leitner, M. Street Crime Landscapes in Baton Rouge, LA: Insights from Google Street View and Image Segmentation, <i>2024 Graduate Research Conference</i> , Baton Rouge, LA, USA |
| 2024 | [13] | He, S., Sun, K. K., Lee, J. , Kwan, M. P., & Mo., K. H. The built environment, out-of-home travel and activities, and public health of older people: A study of Hong Kong, <i>2024 World Symposium on Transport and Land Use Research</i> , Bogotá, Colombia |
| 2024 | [12] | Lee, J. , & Leitner, M. Street Crime Analysis in Baton Rouge, LA: A Google Street View and Machine Learning Approach, <i>2024 Annual Meeting of AAG</i> , Honolulu, HI, USA (Final list for the Robert Raskin Student Competition) |
| 2024 | [11] | Jeong, Y., O'Connell, H. A., & Lee, J. The Effectiveness of Policy Aimed at Securing Women's Safety: A Spatial Analysis in Seoul Metropolitan City, <i>2024 Annual Meeting of Southern Sociological Society</i> , New Orleans, LA, USA |
| 2023 | [10] | Mostafiz, R., Lee, J. , Mithila, S. M., Rahim, M. A., Garcia, A., Friedland, C. J., Rohli, R. V., & Lee, Y. Enhancing Flood Damage Mitigation and Resilience in Louisiana's Coastal Parishes through Geospatial Decision Support, <i>American Geophysical Union Fall Meeting 2023</i> , San Francisco, CA, USA |
| 2023 | [9] | Lee, J. , Mostafiz, R., Mithila, S. M., Rahim, M. A., Garcia, A., Lee, Y., Rohli, R. V., & Friedland, C. J. FloodSafeHome: Empowering Geospatial Decision Support Tool for |

- Flood Management and Freeboard Optimization, *2023 I-GUIDE Forum*, New York, NY, USA.
- 2023 [8] Simpson, C., Jarhan, S., Yang, Y., **Lee, J.**, & Huang, Y. GeoAI Model Transformation, *2023 I-GUIDE Summer School*, Boulder, CO, USA
- 2023 [7] **Lee, J.**, & Leitner, M. Understanding Street Theft Hotspots Using Machine Learning and Google Street Image, *2023 Annual Meeting AAG*, Denver, CO, USA
- 2023 [6] **Lee, J.**, Friedland, C. J., Rohli, R. V., Lee, Y., Rahim, M. A., & Mostafiz, R. Flood Safe Home, *Louisiana Fisheries Forward Summit*, Kenner, LA, USA
- 2022 [5] **Lee, J.**, Friedland, C. J., Lee, Y., Rohli, R. V., Mithila, S. M., Mostafiz, R., Rahim, M. A., & Gana, E. FloodSafeHome: A flood management support system with tailored freeboard recommendations, *2022 Annual meeting of the Southwest Division AAG*, Fayetteville, AR, USA
- 2022 [4] **Lee, J.**, & Leitner, M. Spatiotemporal Analysis of Nighttime Crimes in Vienna, Austria, *2022 Annual Meeting AAG*, Virtual.
- 2021 [3] **Lee, J.**, Shifat, M. P., Rubay, M., Yoncheol, L., Carol, J. F., Ehab, G., Robert, V. R., Monica, F., Arash, T., Pamela, J., & Tao, H. T. “Flood Safe Home”: a web-based interactive decision-making tool for optimal freeboard recommendations to enhance flood resilience, *2021 Annual Meeting AAG*, Virtual
- 2021 [2] Orooji, F., Taghinezhad, A., Friedland, C. J., Mithila, S. P., & **Lee, J.** Wind hazard risk assessment and mitigation for residential construction to support community decision-making Paper, *Disaster PRIMR 2021*, Virtual
- 2021 [1] Tao, H. T., Ferris, M., Jenkins, P., Friedland, C. J., Rohli, R. V., Lee, Y., Taghinezhad, A., Mithila, S. P., **Lee, J.**, Mostafiz, R., Gnan, E., & Rahim, M. A. Incentives and Barriers to Increased Freeboard to Enhance Flood Resilience with FloodSafeHome, *2021 EPA Region 6 Stormwater Conference*, New Orleans, LA, USA

• Poster Presentations

- 2024 [9] **Lee, J.** & Leitner, M. Leveraging Google Street View for Crime Pattern Analysis in Baton Rouge, *2024 I-GUIDE Virtual Poster Competition*, Virtual
- 2024 [8] Jeong, Y., O’Connell, H. A., & **Lee, J.** The Effectiveness of Policy Aimed at Securing Women’s Safety: A Spatial Analysis in Seoul Metropolitan City, *2024 Annual Meeting of Population Association of America*, Columbus, OH, USA
- 2023 [7] **Lee, J.** & Leitner, M. Identify the Characteristics of Crime Hotspots Using Machine Learning and Google Street View, *2023 Graduate Research Conference*, Baton Rouge, LA, USA
- 2023 [6] **Lee, J.**, Friedland, C. J., Garcia, A. J., Mithila, S. P., Rahim, M. A., Mostafiz, R. B., Lee, Y., Rohli, R. V., & Farris, M. T. A Flood Risk Decision-Making Webtool for Flood Mitigation and Freeboard Optimization, *25th Anniversary for LSU AgCenter LaHouse Resource*, Baton Rouge, LA, USA
- 2021 [5] **Lee, J.** Benefits of Optimal Freeboard, *Coastal Connections at LSU – Infographic Challenge*, Baton Rouge, LA, USA
- 2021 [4] Mostafiz, R., Mithila, S. P., **Lee, J.**, Lee, Y., Friedland, C. J., Gnan, E., Rohli, R. V., Farris, M., Taghinezhad, A., Jenkins, P., & Tao, T. H. Communicating the Value of Freeboard through a Decision-making Tool for New Home Construction in Louisiana, *8th International Conference on Flood Management (ICFM8) 2021*, Virtual
- 2021 [3] Mostafiz, R., Mithila, S. P., **Lee, J.**, Gnan, E., Tao, H. T., Lee, Y., Friedland, C. J., Rohli, R. V., Farris, M., & Jenkins, P. Reduction in Housing Cost through Freeboard: A Flood Risk Webtool for Homeowners, *State of the Coast 2021*, Virtual

- 2019 [2] **Lee, J. & Leitner, M.** The effect of nighttime lights on Crime in Baton Rouge, Louisiana, *2019 Annual Meeting AAG*, Washington, District of Columbia, USA
- 2016 [1] **Lee, J.** Changes in the Population Structure of Korea since 2000: A Comparative Analysis of Resident Registration Population and Census Population, *2016 Annual Meeting of Korean Geographers*, Gangnam-gu, Seoul, Korea (KOREAN)

Honors and Awards

• Academic Honors and Awards

- 2024 Runner-up, 2024 Landscape Photography Competition, Landscape Specialty Group – AAG
- 2023 2nd Place Award, The Interactive Dashboard category of the Analytical Products Contest, International Association of Crime Analyst
- 2023 3rd Place Award, 2023 Graduate Research Conference – Poster Section, LSU
- 2017 Minister's Awards for the Best Civil Advisory on National Spatial Data, Ministry of Land Infrastructure and Transport Korea, Sejong, ROK
- 2016 Excellence Award, Geospatial Map Idea Contest, National Geographic Information Institute, Gyeonggi-do, ROK
- 2016 Silver Prize, 2016 Annual Meeting of Korean Geographers – Poster Session, Korean Geographical Society, Seoul, ROK
- 2016 Best Study Group Award, GIS Study, SWU
- 2015 Excellence Study Group Award, GIS Study, SWU
- 2014 Excellence Study Group Award, GIS Study, SWU
- 2013 Best Study Group Award, Daedongyeojido (History Map), SWU

• Travel Awards

- 2025 2025 Texas A&M CyberTraining Summer School, The CyberTraining for Disaster Management at Texas A&M University
- 2025 2025 Scientists and Engineers Early Career Development (SEED) Workshop Selection and Travel Award, KSEA
- 2024 2023-2024 Graduate Student Association Travel Award, LSU
- 2023 2024 Student Travel Award, AAG
- 2023 2022-2023 Graduate Student Association Travel Award, LSU
- 2023 AAG Environmental Perception & Behavioral Geography Specialty Group Travel Award, AAG
- 2023 AAG Applied Geography Specialty Group (AGSG) Travel Award, AAG
- 2022 AAG AGSG Travel & Research Award, AAG
- 2020 2019-2020 Graduate Student Association Travel Award, LSU

Scholarships and Stipends

- 2018-2024 Graduate Assistantship, LSU
- 2019-2022 Graduate Housing Stipend, LSU
- 2017 Bachelor/Master Link Program Scholarship, SWU
- 2016 Entrance Scholarship, SWU
- 2016 Top Five Excellence Student Scholarship, SWU
- 2015 Top Five Excellence Student Scholarship, SWU

2014

Dean's Scholarship, SWU

Academic Services

• Academic Leadership Roles

2024 – 2025	Student Representative, The Cyberinfrastructure Specialty Group (CISG), AAG
2023 – 2025	Student Representative, The Applied Geography Specialty Group (AGSG), AAG
2015 – 2016	President, GISStudy, SWU
2014 – 2016	Student Board Member, Department of Geography, SWU
2014	President, Gumanli (Field Trip Club), SWU

• Conference Organizations

2025	Session Organizer, Using Geo-AI to Map Flood Risk in Residential Areas of Eastern Nebraska, 2025 Nebraska GIS Symposium
2025	Session Organizer, GeoAI-Driven Planning: Advancing Planning with Artificial Intelligence and GIS, Nebraska Planning Conference
2025	Session Organizer, Planning for Resilience, Nebraska Planning Conference

• Invited Reviews (A-Z)

AgriEngineering (1)
 Cities (1)
 Computers, Environment and Urban Systems (1)
 International Journal of Geo-Information (2)
 Journal of Criminal Justice (1)
 Photogrammetric Engineering & Remote Sensing (1)
 Remote Sensing (2)

Licenses & Certifications

2024	Graduate Geographic Information Science Certificate, LSU
2024	The Recreational UAS Safety Test (TRUST) Completion Certificate, Academy of Model Aeronautics (Authentication Token: IAMA86854849643)
2021	Social and Behavioral Responsible Conduct of Research, CITI Program (Credential ID: 41536614)

Other Experiences

2025	2025 Summer School on Cyberinfrastructure and Disaster Resilience, College Station, TX, USA
2025	KSEA Scientists and Engineers Early Career Development (SEED), Atlanta, GA, USA
2025	Antelope Valley Flood Project, Summer Workshop for High School Students, UNL
2023	I-GUIDE Summer School 2023, UCAR campus in Boulder, CO, USA
2015-2017	Organized and led Field Trips, SWU
2014	Organized Field Trip Photo Exhibition, Hyehwa Metro Museum, ROK
2014	Language Tutoring (Chinese & Korean), SWU

Professional Society Memberships

- Association of American Geographers (AAG)
- Korean-American Scientists and Engineers Association (KSEA)
- Korean-America Association for Geospatial and Environmental Sciences (KAGES)
- The Cartography and Geographic Information Society (CaGIS)

Volunteers

2023	Emergency Disaster Kit booth at the LSU Sea Grant Ocean Commotion, LSU
2023	Department of Geography and Anthropology from LSU booth at the 2023 AAG meeting, AAG, Denver, USA
2022	LaHouse Flood Fighter booth at the LSU Sea Grant Ocean Commotion, LSU
2019	GIS-Pro 2019, Urban and Regional Information Systems Association (URISA), New Orleans, USA
2018	SWAAG 2018, Southwest Division of AAG, LSU
2015	Korean Geographical Society Conference 2015, The K-Hotel Seoul, ROK
2014	Korean Cartographic Association Conference 2014, Korea University, Seoul, ROK
2013	Suwon Eco Film Festival, Korea Green Foundation, Gyeonggi-do, ROK
2013	Hi Seoul Festival 2013, Seoul Metropolitan Government, Seoul, ROK

News And Press

2025	Nebraska mobile home parks face high flood risk, study warns, <i>Nebraska Today</i> , https://news.unl.edu/article/nebraska-mobile-home-parks-face-high-flood-risk-study-warns
2025	Mobile home residents in Douglas, Sarpy and Dodge Counties face greater flood risk, UNL study finds, <i>Omaha World-Herald</i> , https://omaha.com/news/state-regional/education/article_abb6b57b-17a3-41d2-abaa-fd9969fee981.html
2025	Inundation Maps for Nebraska Conservation Land, <i>Rainwater Basin Joint Venture</i> , https://www.rwbjv.org/inundation-maps/
2024	UNL Community and Regional Planning Team Helps Hard-Hit Communities Prepare for Future Floods, <i>ACSP Current News: University Member News</i> , https://www.acsp.org/news/689709/UNL-Community-and-Regional-Planning-Team-Helps-Hard-Hit-Communities-Prepare-for-Future-Floods.htm
2024	Global Engagement Spotlight: Jiyoung Lee, <i>The Global Tiger Blog</i> , https://www.lsu.edu/global-engagement/about/involved/global-tiger/2024/blog-alum-jul-24.php
2023	LSU Researchers Develop Tool To Predict Flood Insurance Premium, <i>houmatoday</i> , https://www.houmatoday.com/story/news/2023/11/01/lsu-researchers-develop-tool-to-predict-flood-insurance-premiums/71393317007/

Skills

Design	Adobe Photoshop, Illustrator, XD, and Flash
GIS	ArcGIS Pro, ArcGIS Online, ArcGIS JavaScript, ArcPy, QGIS, Leaflet, CARTO, Mapbox.gl.js, Cesium.js, CrimeStat, and Hazus
Languages	HTML, CSS, JavaScript, ReactJS, Python, and SQL
Other Software	Microsoft Office
Remote Sensing	ERDAS IMAGINE

Statistics

R and SPSS

References (A-Z Last Names)

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