Yunsik Kim
Curriculum Vitae

The University of North Carolina at Charlotte
Department of Earth, Environmental and Geographical Sciences

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Homepage: https://ykimgeo.github.io/
Google Scholar: Link
LinkedIn: Link

EDUCATION

Ph.D. Student in Geography   Aug 2024–Present
Department of Earth, Environmental and Geographical Sciences, The University of North
Carolina at Charlotte, Charlotte, NC, USA.
Advisor: Dr. Youngseob Eum
Cumulative GPA: 4.0/4.0

Master of Geography   Sep 2021–Aug 2023
Department of Geography, Dongguk University, Seoul, South Korea
Advisor: Dr. Byungyun Yang
Thesis: *Analysis of Changes in Urban Activity Patterns After the COVID-19 Pandemic Using
GeoAI and SNS data*
Cumulative GPA: 4.5/4.5

Bachelor of Arts in Geography Education   Mar 2016–Aug 2021
Department of Geography Education, Dongguk University, Seoul, South Korea
Cumulative GPA: 4.0/4.5 (Magna Cum Laude)

RESEARCH EXPERIENCE

Research Assistant   Aug 2024–Present
*Department of Earth, Environmental and Geographical Sciences, University of North
Carolina at Charlotte*

Research Assistant   May 2025–Aug 2025
*Center for Applied Geographic Information Science, University of North Carolina
at Charlotte*

Visiting Scholar   Aug 2022–Mar 2023
Department of Natural Sciences, University of West Georgia

Graduate Research Assistant   Sep 2021–Aug 2023
Department of Geography, Dongguk University

Researcher (Part-time)   Jan 2020–Dec 2021
National Institute of Ecology, Ministry of Environment of Korean Government

Undergraduate Research Assistant   Sep 2019–Aug 2021
Department of Geography Education, Dongguk University

TEACHING EXPERIENCE

Co-Instructor (Part-time), GEO2045 (GIS)   Fall 2023
Department of Geography Education, Dongguk University

Lecturer (Part-time), Social Studies   Aug 2023
Howon Middle School, Uijeongbu, South Korea

Teaching Assistant, GEO4063 (GIS and Spatial Analysis)   Spring 2022
Department of Geography Education, Dongguk University

Student Teacher, Geography   May 2021
Osong High School, Cheongju, South Korea

Teaching Assistant, GEO2046 (Cartography)   Spring 2021
Department of Geography Education, Dongguk University

PROFESSIONAL EXPERIENCE

Administrative Assistant   Mar 2024–Jun 2024
Department of Environmental & Biological Chemistry, Chungbuk National University, Cheongju, South Korea

PUBLICATIONS

Underline: Corresponding Author

Peer-Reviewed Articles

[6] **Kim, Y.** & Eum, Y. (Under review). Improving telehealth accessibility assessment with a demographics-weighted two-stop virtual catchment area (DW-2SVCA) method. *Computational Urban Science*.

[5] **Kim, Y.** & Yang, B. (Under review). GeoAI-driven analysis of urban activity shifts using geotagged social media data across the COVID-19 pandemic. *Environment and Planning B: Urban Analytics and City Science*.

[4] Yang, B., **Kim, Y.**, Kim, T. H. & Park, J. K. (2024). Investigating quantitatively the root causes of non-implementation of public surveying performace review and deriving institutional improvement measures. *Journal of the Korean Society of Surveying, Geodesy, Photogrammetry and Cartography*, *42*(3), 213–224 (in Korean with English abstract). https://doi.org/10.7848/ksgpc.2024.42.3.213

[3] **Kim, Y**. (2023). Prediction of traffic congestion using a time-series model and spatiotemporal big data: A case study of the Atlanta Downtown Connector. *The Geographical Bulletin*, *64*(2), 93–102. https://digitalcommons.kennesaw.edu/thegeographicalbulletin/vol64/iss2/7

[2] **Kim, Y.** & Yang, B. (2023). Extracting urban areas of interest using HDBSCAN clustering method. *Journal of the Korean Cartographic Association*, *23*(1), 67–77 (in Korean with English abstract). https://doi.org/10.16879/jkca.2023.23.1.067

[1] Seong, J., **Kim, Y.**, Goh, H., Kim, H. & Stanescu, A. (2023). Measuring traffic congestion with novel metrics: A case study of six U.S. metropolitan areas. *ISPRS International Journal of Geo-Information*, *12*(3), 130. https://doi.org/10.3390/ijgi12030130

None Peer-Reviewed Reports

[3] Kim, T. & **Kim, Y.** (2021). Hanbando Wetland—Topography, Geological Features, and Deposits. In Wetlands Research Team, National Institute of Ecology (Ed.), *4th Intensive Survey on the Wetland Protected Areas ('21)* (pp. 1293–1317). Seocheon: National Institute of Ecology (in Korean).

[2] Kim, T. & **Kim, Y.** (2020b). Topography/Landscape. In National Institute of Ecology (Ed.), *2020 Ecological Survey on National Coastal Sand Dunes (Jeju Island)* (pp. 21–378). Seocheon: National Institute of Ecology (in Korean).

[1] Kim, T. & **Kim, Y.** (2020a). Sinbulsan Wetland—Topography, Geological Features, and Deposits. In Wetlands Research Team, National Institute of Ecology (Ed.), *3rd Intensive Survey on the Wetland Protected Areas ('20)* (pp. 3–23). Seocheon: National Institute of Ecology (in Korean).

SCHOLARLY PRESENTATIONS

Oral Presentations

[12] **Kim, Y.** (2025, April 11). *Advancing telehealth accessibility measurement with demographics-weighted two-step virtual catchment area (DW-2SVCA)*. Graduate Research Symposium 2025, University of North Carolina at Charlotte, Charlotte, NC, USA.

[11] Eum, Y. & **Kim, Y.** (2025, March 24–28). *Evaluating the impact of light rail system expansion on e-scooter usage pattern changes in Charlotte, North Carolina*. 2025 Annual Meeting of the American Association of Geographers (AAG), Detroit, MI, USA.

[10] **Kim, Y.** & Eum, Y. (2025, March 24–28). *Demographics-weighted two-step virtual catchment area (DW-2SVCA) for an improved telehealth accessibility measurement*. 2025 Annual Meeting of the American Association of Geographers (AAG), Detroit, MI, USA.

[9] **Kim, Y.** (2024, November 20). *Exploring telehealth accessibility for mental healthcare in Mecklenburg County, North Carolina*. 2024 GIS Day, University of North Carolina at Charlotte, Charlotte, NC, USA.

[8] **Kim, Y.** & Yang, B. (2023, October 20–23). *Analysis of changes in urban activity patterns after the COVID-19 pandemic using GeoAI and SNS data*. 2023 15th Korea-China-Japan Joint Conference on Geography, Seoul, South Korea.

[7] **Kim, Y.**, Seong, J. & Yang, B. (2023, June 17). *Developing traffic congestion index based on space time cube and predicting vehicle crashes prone areas using machine learning*. 2023 Summer Conference of the Korean Urban Geographical Society, Cheongju, South Korea.

[6] **Kim, Y.**, Seong, J., Goh, H. & Stanescu, A. (2023, March 23–27). *Modeling the probabilities of vehicle crashes using machine learning methods with congestion amounts and spatiotemporal features in Montgomery County, Maryland*. 2023 Annual Meeting of the American Association of Geographers (AAG), Denver, CO, USA.

[5] Seong, J., **Kim, Y.**, Goh, H. & Stanescu, A. (2023, March 23–27). *Development of a traffic congestion index from spatiotemporal big data for urban transportation research and applications*. 2023 Annual Meeting of the American Association of Geographers (AAG), Denver, CO, USA.

[4]   Goh, H., Seong, J., **Kim, Y.** & Stanescu, A. (2023, March 23–27). *Does traffic congestion increase vehicle crashes? a regional scale study with a novel congestion index and machine learning methods*. 2023 Annual Meeting of the American Association of Geographers (AAG), Denver, CO, USA.

[3]   **Kim, Y.** & Yang, B. (2022, December 10). *Analysis of spatiotemporal change in the urban landscape using GeoAI and social media images: Comparison of the period before and after covid-19*. 2022 Winter Conference of the Korean Urban Geographical Society, Seoul, South Korea.

[2]   **Kim, Y.**, Goh, H., Seong, J. & Stanescu, A. (2022, November 20–21). *Development of a method to summarize metropolitan traffic amount*. 2022 Annual Meeting of the Southeastern Division of American Association of Geographers (SEDAAG), Atlanta, GA, USA.

[1]   **Kim, Y.** & Yang, B. (2022, February 25–March 1). *Exploring the spatiotemporal patterns of urban characteristics using social big data and GeoAI*. 2022 Annual Meeting of the American Association of Geographers (AAG), Virtual.

Poster Presentations

[1]   Kim, S., **Kim, Y.**, Lee, T., Yang, B., Park, J. K. & Kim, T. H. (2024, June 27–28). *Analysis of non-implementation of public surveying performance review for institutional improvement*. 2024 Annual Meeting of the Korean Geographical Society, Seoul, South Korea.

AWARDS AND HONORS

First Place, Presentation Competition on GIS Day 2024,   November 2024
   GIS Day Organization Committee, University of North Carolina at Charlotte.

Certificate of Appreciation,   June 2024
   The Korean Geographical Society.

Young Geographers Award–Best Paper,   October 2023
   The 15th Korea-China-Japan Joint Conference on Geography.

Geospatial Information Workforce Development Scholarship,   Fall 2021–Spring 2023
   Ministry of Land, Infrastructure and Transport of Korean Government.

Dongguk Future Leaders Scholarship,   Fall 2021
   Graduate School of Dongguk University.

Magna Cum Laude,   August 2021
   Department of Geography Education, Dongguk University.

Academic Scholarship,   Spring 2021
   Department of Geography Education, Dongguk University.

Off-Campus Scholarship,   Fall 2020
   Silla Culture Scholarship Foundation.

Academic Scholarship, Spring 2020
  Department of Geography Education, Dongguk University.

Academic Scholarship, Fall 2019
  Department of Geography Education, Dongguk University.

ACADEMIC & COMMUNITY SERVICE

Administrative Manager, Organizing Committee 2023
  The 15th Korea-China-Japan Joint Conference on Geography, Seoul, South Korea

President of Student Council 2020
  Department of Geography Education, Dongguk University

Auxiliary Police Jan 2017–Oct 2018
  Military Service at Korean National Police Agency

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Association of Geographers (AAG)
- Korean-American Scientists and Engineers Association (KSEA)
- Korea-America Association for Geospatial and Environmental Sciences (KAGES)
- The Korean Geographical Society (KGS)

CERTIFICATES & TECHNICAL SKILLS

Teacher's Certificate, the Secondary School Teacher (Grade II) of Geography 2021
  Ministry of Education of Korean Government

Engineer Surveying Geo-Spatial Information 2021
  Human Resources Development Service of Korea

Information Technology Qualification (ITQ), Office Automation (OA) Master 2018
  Korea Productivity Center

Word Processor User Level-1 2017
  The Korea Chamber of Commerce & Industry

Strong Skill with GIS Softwares: ArcGIS, QGIS

Strong Skill in Programming Languages: Python, R