

Wan Hee Kim

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Walters Academic Building #310, Knoxville, TN USA 37996

EDUCATION

2023 – **Ph.D. Student**, Geography and Sustainability, University of Tennessee, Knoxville

Present Research Interests: Location Science, Spatial Optimization, Transport Geography, Network Analysis, GIScience

2018 **M.A.**, Geography, Seoul National University
Thesis: A study on Spatio-temporal occupation patterns in urban areas, through Mobile Big Data (Advisor: Geonhak Lee)

2016 **B.A.**, Geography, Sangmyung University

PEER-REVIEWED JOURNAL PUBLICATIONS

[Minor Revisions] **Wanhee Kim**, Hyun Kim, Yonghwan Chun. A spatially informed solving approach for the Traveling Salesman Problem. Submitted to *The Professional Geographer*

2025 Yim, Jongseo, **Kim, Wan**, Cho, Sung-Jin, Chan Woong, Kim and Park, Jae-Young. Investigating maritime traffic routes: integrating AIS data and topographic statistics. *Maritime Policy & Management*. 52(4), 590-608

2018 **Wanhee Kim**, Jongseo Yim, and Ahyun Song. Spatio-temporal Changes of the Agglomerated Marketplace by the Use of the Pedestrian Flow Data: A case study of Hongdae Area. *Journal of the Korean Cartographic Association*. 18(1), 49-63

2016 Geonhak Lee, Chanwoo Jin, Jiwoo Kim, and **Wanhee Kim**, (2016), A Study on the Characteristics of the Spatial Distribution of Sex Crimes: Spatial analysis based on environmental criminology, *Journal of the Korean Geographic Society*. 51(6), 853-871

PRESENTATIONS

2025 Wanhee Kim, Hyun Kim, and Paul Jung. *Proposing a novel concept of Maritime hub-corridors*. North American Regional Science Council Annual Meeting

2025 Wanhee Kim, Hyun Kim, and Paul Jung. *Maritime hub-corridors: Examining the Spatial Structure in Global Maritime Networks*. International Association of Maritime Economist Annual Meeting

2025 Wanhee Kim. *A spatially informed solving approach for the Traveling Salesman Problem*. American Association of Geographers Annual Meeting

2024 Wanhee Kim, Changwha Oh, and Hyun Kim. *Geographic Disparities in Pediatric Care: Analyzing Accessibility in Seoul, South Korea*. International Medical Geography Symposium Annual Meeting

2024 Wanhee Kim, Hyun Kim, Yonghwan Chun. *The Travel Salesman Problem with Spatial Information*. American Association of Geographers Annual Meeting

2024 Wanhee Kim, *Panelist in Young Korean Geographers Forum*. American Association of Geographers Annual Meeting

2023 Jongseo Yim, Wan Hee Kim, Sung Jin Cho (Presenter), Chan Woong Kim and Jae Young, Park. *Methodology for Designating Maritime Traffic Route Network using AIS Data and Topographic Statistics*, The 11th International Conference on Logistics and Maritime Systems

2018 Wanhee Kim, Jongseo Yim, and Ahyun Song. *Spatio-temporal Changes of the Agglomerated Marketplace by the Use of the Pedestrian Flow Data: A case study of Hongdae Area*. Korean Geographical Society Annual Meeting

2017 Wanhee Kim. *Analyzing Dynamics of Urban population distribution in a Micro-scale through the Mobile big data: Using Spatio-temporal clustering*. Korean Cartographic Association annual meeting

2017 Wanhee Kim. *A Study on the Dynamics of Urban Population Distribution: Using Local Bivariate Moran's I*, The 12th Korea-China-Japan Joint Conference on Geography

2017 Wanhee Kim, and Geonhak Lee. *Analyzing Population Dynamics in Urban Aarea, using Spatio-temporal Cluster Modeling*. Korean Geographical Society Annual Meeting

2017 Wanhee Kim. *The spatial distribution of economies in Korea in terms of GRDP- using dasymetric mapping*. American Association of Geographers Annual Meeting

2017 Junbeom Bahk (Presenter), Wanhee Kim, and QiuHong Jin. *Spatial pattern of wildlife-vehicle collision according to topographical conditions of national park roads in South Korea*. American Association of Geographers Annual Meeting

BOOK PUBLICATION

2020 Naval Intelligence Group. *Handbook of Ocean Environment in Mine Warfare Classified Intelligence* (Classified Intelligence)
Contents: Analysis of Ocean Environment and Optimized Spatial solution for Mine Warfare in Korea

EMPLOYMENT HISTORY

Research Assistant, The Center for Transportation Research, Tennessee	2024
Responsibilities: Literature Review, Developing Tennessee Statewide Travel Model	
External Researcher, Korea Research Institute for Human Settlement	2022 - 2023
Responsibilities: Analyzing Spatial Big Data including 'Card Usage Data' and Mobile Phone Big data	
Technical Advisor, Korea Research Institute for Human Settlement	2022
Responsibilities: Visualizing Spatial Data and Reviewing the Report	
Spatial data analyst, Route Development Team, Hyundai AutoEver	2022
Responsibilities: Analyzing Trajectory data to develop Route Searching Algorithms	
Intelligence Officer, Naval Intelligence Group, Republic of Korea Navy	2018 - 2021
Imagery Intelligence Branch	
Managing Imagery Intelligence Branch	
Analyzing UAV & Remote Sensing Data	
Analyzing Naval Intelligence in ROK-US Combined Command Post Training	
Ocean Environmental Intelligence Branch	2019 - 2021
Analyzing Ocean Environment & Submarine Topography using GIS	
Analyzing Spatially Optimized Area for Military Operation	
Intelligence Vessel	2019
Managing Imagery Intelligence Team	
Analyzed UAV & Remote Sensing Data	
Naval Academy	2018 -2019
Officer trainee	
Intern, Microsoft Korea	2015
Responsibilities: Developing a B2B marketing strategy	

RESEARCH EXPERIENCES

Research Assistant, Center for Transportation Research	2024
Research Project: Developing Tennessee Statewide Travel Demand Model	
Research Assistant, University of Tennessee, Knoxville	2023 - 2024
Research Project (NSF project) Integrating Spatial Autocorrelation into Location-Allocation Problem	
External Researcher, Korea Research Institute for Human Settlement,	2022 - 2023
Research Project: Diagnosis of changes in Urban Spatial Structure using	

Spatial Big data

Technical Advisor, Korea Research Institute for Human Settlement, Research Project: 2022 National Territorial Monitoring Report	2022
Technical Advisor, Korea Maritime Institute Research Project: Operation and Management of Marine Spatial Planning Evaluation	2021
Intelligence Officer, Naval Intelligence Group, Republic of Korea Navy Produced over 50 reports using GIS about Imagery Intelligence and Oceanography Intelligence	2019 - 2021
Research Assistant, Korea Research Institute for Human Settlement Research Project: Estimation of Correlation between the Innovative City and Surrounding Areas	2017
Research Assistant, Seoul National University Research Project: Research of spatial and environmental factors of sex crime and optimization of crime prevention facilities	2016 - 2017
Research Assistant, Gyeonggi Content Agency Research Project: A plan to build Big Data Operation Center in a Special area for Big Data utilization	2016

TEACHING EXPERIENCES

University of Tennessee

As Lab Instructor

Quantitative Methods in Geography	Fall 2025
Geovisualization and Geographic Information Science	Spring 2025

As Teaching Assistant

Geography of Transportation	Spring 2025
World Geography	Spring 2024

Seoul National University

As Lab Instructor

Computer Cartography	Spring 2017
Big Data Insight (GIS & Geographic Visualization Using R programming)	Summer 2016

HONORS & AWARDS

2025 **Finalist.** AAG John Odland Award (SAM student paper competition) at American Association of Geographers Annual Meeting

2024 Student Travel Award. The American Association of Geographers Spatial Analysis

and Modeling Specialty Group

2024 KAGES Sim Student Travel Award. Korea-America Association for Geospatial and Environmental Sciences

2024 GSS Travel Awards. Graduate Student Senate at University of Tennessee Knoxville

2020 **Naval Operation Commander's Commendation** (Awarded underwriting 'Ocean Environment of Mine Warfare')

2018 **Best Paper Award**. Korean Cartographic Association

2017 Research Scholarship. National Research Foundation of Korea (Brain Korea 21+)

2016 Research Scholarship. National Research Foundation of Korea (Brain Korea 21+)

2016 Merit-based Scholarship. Seoul National University

INSTITUTIONAL SERVICES

College Level

University of Tennessee, Knoxville

President, Korean Graduate Student Association

2025 - 2026

Treasurer, Korean Graduate Student Association

2024 - 2025

TECHNOLOGIES

C-plex: Linear programming

Programming Language (Python, R): Spatial and Spatio-temporal analysis

SQL: Data Preprocessing

GIS Tools (ArcGIS, QGIS, SNAP): Spatial and spatiotemporal data analysis & mapping

Kepler, Flourish: Data Visualizing