

# Wan Hee Kim

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## EDUCATION

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- 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

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- [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

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- 2025 (Accepted) 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 12<sup>th</sup> 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

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- 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

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

## RESEARCH EXPERIENCES

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

## Spatial Big data

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

## TEACHING EXPERIENCES

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### 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

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2025	<b>Finalist.</b> 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

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### College Level

University of Tennessee, Knoxville

President, Korean Graduate Student Association

2025 - 2026

Treasurer, Korean Graduate Student Association

2024 - 2025

## TECHNOLOGIES

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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