DONGEUN KIM

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Education

- **Ph.D.** (2021.05 ~ now)
- Geospatial Information Sciences, The University of Texas at Dallas, Texas, United States
- *Advisor*: Professor Yongwan Chun

- **M.A.** (2017.03 ~ 2019.02)
- Social Studies Education/Geography Education, Ewha Womans University, Seoul, South Korea
- *Advisor*: Professor Youngok Kang
- *Thesis*: "Prediction of the number of Illegal Parking cases using LSTM: a case Study of Civil
    Complaints in Seoul"
- *Scholarship*: Spatial Information Industry Promotion Institute, Graduate School of Specialization of
    Spatial Information Convergence Scholarship Student

- **B.A.** (2013.03 ~ 2017.02)
- Geography Education, Social Studies Education, Ewha Womans University, Seoul, South Korea

Scholarships

- 2022, Spring 2022, Pioneer Student Research Grants, $2,100
- 2021, Fall 2021, Korean-American Association for Geospatial and Environmental Sciences (KAGES)
    Students Affiliated Group Mini-Grant, $150
- 2018, 2nd Semester, Scholarship, ₩2,568,000
- 2018, 2nd Semester, Research Assistant Scholarship, ₩2,568,000
- 2018, 1st Semester, Scholarship, ₩2,568,000
- 2018, 1st Semester, Research Assistant Scholarship, ₩2,568,000
- 2017, 2nd Semester, Scholarship, ₩3,000,000
- 2017, 1st Semester, Scholarship, ₩1,136,000
- 2017, 1st Semester, Student Assistant Scholarship, ₩4,000,000

Research experience

- **Integrating spatial autocorrelation into location-allocation problems**
  (2021.05 ~ now)
- ***Ordering organization***: National Science Foundation
- ***Execution organization***: The University of Texas at Dallas, Texas, United States
- ***Role***: Research

- **Development of Spatial Information Utilization Technology for Disaster Data Management**
  (2020.05 ~ 2020.11)
- ***Ordering organization***: National Disaster Management Research Institute
- ***Execution organization***: Wavus Co., Ltd., Seoul, South Korea
- ***Role***: Research, Data Collecting, Database Management

- **A Study on the Establishment of the National Integration Center for Smart City Safety Network**
  (2020.06 ~ 2020.12)
- ***Ordering organization***: Ministry of Land, Infrastructure, and Transport
- ***Execution organization***: Wavus Co., Ltd., Seoul, South Korea
- ***Role***: Research

- **Development of Image Classification Model for Intelligent Location-based Tourism Service using Convolutional Neural Network (CNN)** (2019.05 ~ 2019.06)
- ***Ordering organization***: Korea Agency for Infrastructure Technology Advancement
- ***Execution organization***: Ewha Womans University, Seoul, South Korea
- ***Role***: Preparation of a research plan, Verifying Image Classification Accuracy for Existing Models, Collecting Training Dataset, Development of Prototype System using Javascript, Research

- **A Study on the Spatio-temporal Data Mining of Social Media Big Data and the Analysis of Image Data based on Deep Learning** (2018.11 ~ 2019.02)
- ***Ordering organization***: Korea Land and Geospatial InformatiX Corporation, Spatial Information Research Institute
- ***Execution organization***: Ewha Womans University, Seoul, South Korea
- ***Role***: Development of Algorithm for Classification of Tourists and Residents, Image Data Mining using TensorFlow, Research

- **Research on Mobile-based Experiential Learning about World Heritage in Korea: Integrating Education and Information Technology** (2017.01 ~ 2019.02)
- ***Ordering organization***: National Research Foundation of Korea
- ***Execution organization***: Ewha Womans University, Seoul, South Korea

- *Role*: Improving Field Trip Support System Function and UI/UX, Planning a Field Trip, Research, Administrative Work

Publications

• Hwang, B., Lee, J., **Kim, D.**, & Kim, J. (2021). A Study on the Use of Grid-based Spatial Information for Response to Typhoons. *Journal of the Society of Disaster Information*, *17*(1), 25-38. **(KCI)**

• **Kim, D.**, Kang, Y., Park, Y., Kim, N., & Lee, J. (2020). Understanding tourists' urban images with geotagged photos using convolutional neural networks. *Spatial Information Research*, *28*(2), 241-255. **(SCOPUS, ESCI)**

• **Kim, D.**, & Kang, Y. (2019). Prediction of the number of Illegal Parking cases using LSTM: a case Study of Civil Complaints in Seoul. *Journal of Korean Society for Geospatial Information Science*, *27*(3), 39-47. **(KCI)**

• Kim, N., Kang, Y., Lee, J., **Kim, D.**, & Park, Y. (2019). Tourist Hot Spot Analysis in Seoul using Geotagged Photos. *Seoul Studies*, *20*(1), 81-96. **(KCI)**

• Park, Y., Kang, Y., **Kim, D.**, Lee, J., & Kim, N. (2019). Analysis of Seoul Image of Foreign Tourists Visiting Seoul by Text Mining with Flickr Data. *Journal of Korean Society for Geospatial Information Science*, *27*(1), 11-23. **(KCI)**

• Lee, J., Kang, Y., Kim, N., **Kim, D.**, & Park, Y. (2018). Analysis of Travel Patterns of Seoul Tourists by Trajectory Data Mining. *Journal of the Korean Cartographic Association*, *18*(3), 117-129. **(KCI)**

Presentations

• **Kim, D.**(speaker), Kim, H., Chun, Y., & Griffith, D. A. (2022). Location Modeling of Dialysis Facilities with Response to Medical Service Disruption from Natural Disaster: A Spatial Optimization Approach, *Proceedings of the American Association of Geographers for 2022 AAG Annual Meeting*, NA-NA. **(International)** (2022.02.25 ~ 2022.02.28)

• **Kim, D.**(speaker), Kim, J., & Hwang, B. (2020). Utilization of Convergence Grid for Disaster Response. *Proceedings of the Korean Society for Geospatial Information Science for 2020 Fall Conference,* NA-NA. (2020.11.20)

• **Kim, D.**, Kang, Y.(speaker), Park, Y., Kim, N., Lee, J., & Cho, N. (2019). Analysis of Tourists' Image of Seoul with Geotagged Photos using Convolutional Neural Networks. *Proceedings of the ICA, Tokyo, Japan*, 9-13. **(International)** (2019.07.14 ~ 2019.07.20)

• Lee, J.(speaker), Kang, Y., Kim, N., **Kim, D.**, & Park, Y. (2019). Analysis of Travel Patterns of Seoul Tourists by Trajectory Data Mining. *Abstracts of the ICA*, *1,* NA-NA. **(International)** (2019.07.14 ~ 2019.07.20)

• **Kim, D.**(speaker), & Kang, Y. (2019). Prediction of the number of Illegal Parking cases using LSTM: a case Study of Civil Complaints in Seoul. *Proceedings of the Korean Society for Geospatial Information Science for 2019 Spring Conference*, 257-260. (2019.05.31)

• Kim, N.(speaker), Lee, J., Park, Y., **Kim, D.**, & Kang, Y. (2018). Tourist Hot Spot Analysis in Seoul using Geotagged Photos. *Proceedings of the Korean Cartographic Association for 2018 Winter Conference*, 65-68. (2018.12.15)

• Park, Y.(speaker), **Kim, D.**, Kim, N., Lee, J., & Kang, Y. (2018). Analysis of Seoul Image of Tourists Visiting Seoul by Text Mining and Image Mining with Social Media Data. *Proceedings of the Korean Urban Geographical Society for 2018 Winter Conference*, 47-50. (2018.12.08)
• Lee, J.(speaker), Kim, N., **Kim, D.**, Park, Y., & Kang, Y. (2018). Analysis of tourist behavior in Seoul by trajectory pattern mining. *Proceedings of the Korea Association of Geographic Information Studies, Korean Society for Geospatial Information Science, and Korea Spatial Information Society 2018 Joint Fall Conference*, 205-206. (2018.11.01)
• **Kim, D.**(speaker), Park, Y., Kim, N., Lee, J., & Kang, Y. (2018). Analysis of Image of Tourists Visiting Seoul using CNN Deep Learning, *Proceedings of the Korea Association of Geographic Information Studies, Korean Society for Geospatial Information Science, and Korea Spatial Information Society 2018 Joint Fall Conference*, 191-193. (2018.11.01)
• Kang, Y., Choi, K., Lee, J., Cho, N., & **Kim, D.**(speaker) (2017). A case study of spatial information analysis and visualization based on SaaS: Analysis and share of fieldwork experience system outcomes using MapPrime Cloud. *Proceedings of the Korean Society for Geospatial Information Science for 2017 Fall Conference*, 33-35. (2017.10.27)

Academic achievements

• **Seoul Research Competition 2018** (2018.11)
- *Award*: Excellence Award
- *Topic*: "Analysis of Characteristics of Visits to Seoul using Social Media Data: Focusing on Flickr Data"

• **Korea Association of Geographic Information Studies, Korean Society for Geospatial Information Science, and Korea Spatial Information Society 2018 Joint Fall Conference** (2018.11)
- *Award*: Excellent Thesis Award
- *Topic*: "Analysis of image of tourists visiting Seoul using CNN Deep Learning"

• **2019 Korea Spatial Information Society Conference** (2019.05)
- *Award*: Excellent Thesis Award
- *Topic*: "Analysis of Seoul Image of Foreign Tourists Visiting Seoul by Text Miming with Flickr Data"

Training

• **Process for Training Web Application Software Developers using Java** (2019.08.14 ~ 2019.12.27)
- Institution: Ssangyong Institute of System Technology

• **Spatial Data Analysis and Practice using TensorFlow** (2019.02.14 ~ 2019.02.15)
- *Institution*: Korean Society for Geospatial Information Science

• **Implementing and Practicing Deep Learning using TensorFlow** (2018.07.26 ~ 2018.07.27)
- *Institution***:** Korean Society for Geospatial Information Science

• **Deep Neural Network/Deep Learning Course using TensorFlow Directly Implemented by My Hands** (2018.06.14)
- *Institution***:** The Korean Institute of Communications and Information Sciences

• **Spatial Data Processing and Analysis using R** (2018.02.08 ~ 2018.02.09)
- *Institution***:** Korean Society for Geospatial Information Science

• **2017 Esri User Conference** (2017.07.07 ~ 2017.07.10)
- *Institution***:** Esri

Work history

• **University of Texas at Dallas**, Texas, United States (2021.05 ~ now)
- *Department*: Geospatial Information Sciences, GIS Research Team
- *Position*: Research Assistant

• **Wavus Co., Ltd.**, Seoul, South Korea (2020.01 ~ 2021.02)
- *Department*: Institute of Technology
- *Position*: Researcher, Junior Software Engineer

• **Ewha Womans University-Industry Collaboration Foundation**, Seoul, South Korea (2019.05 ~ 2019.06)
- *Department*: Social Studies Education
- *Position*: Researcher

• **Ewha Womans University-Spatial Information Laboratory**, Seoul, South Korea (2016.12 ~ 2019.04)
- *Department*: Social Studies Education
- *Position*: Research Assistant

• **Kyunghee Girls' Middle School**, Seoul, South Korea (2016.04.04 ~ 2016.04.29)
- *Department*: -
- *Position*: Social Studies Teacher (Internship)

Certificates

• **Structured Query Language Developer (SQLD)**
- *Publisher*: Korea Data Agency
- *Acquisition date*: 2019.12

• **National Technical Qualification Certificate - Engineer Information Processing**
- *Publisher*: Ministry of Science and ICT
- *Acquisition date*: 2019.11

• **Advanced-Data Analytics Semi-Professional (ADsP)**
- *Publisher*: Korea Data Agency
- *Acquisition date*: 2019.09

• **Teacher's Certificate - the Secondary School Teacher (2nd Grade) of Geography**
- *Publisher*: Ministry of Education
- *Acquisition date*: 2017.02

Computer skills

• **Spatial Analysis Tool**
- ArcGIS Pro, QGIS

• **Computer Language**
- Java (Spring framework), Javascript/JQuery, HTML5/CSS3
- Oracle SQL, PostgreSQL/PostGIS
- Python, R

• **Office Automation**
- Microsoft office 365 (Excel, Powerpoint, Word)