

# Jinwoo Park, Ph.D.

CyberGIS Center for Advanced Digital and Spatial Studies  
 University of Illinois Urbana-Champaign  
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## RESEARCH AND TEACHING INTERESTS

Geographic Information Science and Systems (GIS), Spatial Data Science, Urban Dynamics, Spatiotemporal Analysis, Dynamic (24-hour) Accessibility, CyberGIS.

## EDUCATION

<b>Ph.D., Department of Geography, Texas A&amp;M University, College Station, TX, USA</b>	2017–2021
Advisor: Dr. Daniel W. Goldberg	
Dissertation Title: Advancing Spatial Accessibility Measurements to Urban Infrastructure: Uncovering Temporal Dynamics and Uncertainty	
<b>M.S., Department of Geography, Kyung Hee University, Seoul, Korea</b>	2014–2016
Advisor: Dr. Jinmu Choi	
Thesis Title: Comparison of Address Coordinates with the Change in Korean Address System	
<b>B.S., Department of Geography, Kyung Hee University, Seoul, Korea</b>	2008–2013
Advisor: Dr. Chulsue Hwang	

## RESEARCH EXPERIENCE

<b>Postdoctoral Research Associate</b>	2022–Present
CyberGIS Center for Advanced Digital and Spatial Studies, University of Illinois Urbana-Champaign	
<b>Graduate Assistant</b>	2018–2021
Division of Information Technology, Texas A&M University	
<b>Engineer &amp; Student Assistant</b>	2014–2017
Spatiotemporal Big Data Center, Kyung Hee University, Seoul, Korea	
<b>Research Assistant</b>	2014–2017
Spatial Analysis Lab, Kyung Hee University, Seoul, Korea	

## TEACHING EXPERIENCE

<b>Instructor</b> , Programming for GIS (GEOG489)	Spring 2022
Department of Geography and Geographic Information Science, University of Illinois Urbana-Champaign	
Recognized as List of Teachers Ranked as Excellent by Their Students	
<b>Teaching Assistant</b> , Remote Sensing in Geoscience (GEOG361)	Fall 2017
Department of Geography, Texas A&M University	

## AWARDS AND HONOR

<b>Teachers Ranked as Excellent by Their Students</b> ,	2022
Center for Innovation in Teaching & Learning, University of Illinois Urbana-Champaign.	
<b>Honorable Mention</b> , Paper Awards,	2021
University Consortium for Geographic Information Science (UCGIS) Symposium 2021, Virtual.	

<b>Finalist</b> , Student Honors Paper Competition, Geographic Information Science and Systems Specialty Group, The Annual Meeting of the American Association of Geographers, Virtual.	2021
<b>First place</b> , Paper Award, Korean-American Association for Geospatial and Environmental Sciences.	2021
<b>First place</b> , Graduate Student Research Competition, Texas GIS Day 2020, Virtual.	2020
<b>Second place</b> , Research Competition for the Optimizing Bicycle Sharing System Locations, Korea Land & Housing Corporation.	2020
<b>First place</b> , Paper Competition, Texas A&M University GIS Day 2019, College Station, TX.	2019
<b>First place</b> , Summer School Group Competition, American Association of Geographers - University Consortium for Geographic Information Science (AAG-UCGIS) Summer School 2019, Urbana, IL.	2019
<b>Student leadership award</b> , Korean-American Association for Geospatial and Environmental Sciences.	2019
<b>Second place</b> , Graduate Geoscience Oral Presentation, 22 <sup>nd</sup> Annual Student Research Week, Texas A&M University, College Station, TX.	2019
<b>First place</b> , Outstanding Paper Awards, The 10 <sup>th</sup> China-Japan-Korea Joint Conference & 1 <sup>st</sup> Asian Conference on Geography, Shanghai, China.	2015
<b>Bronze medal</b> , Seoul Institute Thesis Competition, The Seoul Institute, Seoul, Korea.	2015
<b>First place</b> , Student Poster Competition, Annual Meeting of Korean Geographers, Seoul, Korea.	2014
<b>Bronze medal</b> , Student Poster Competition, Annual Meeting of the Korean Geographical Society, Seoul, Korea.	2010

## PEER-REVIEWED PUBLICATIONS

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### Journal Articles

- [10] Lyu, F., Zhou, L., **Park, J.**, Baig, F. & Wang, S. (Under review). Mapping real-time heat exposure with location-based social media data. *Computers, Environment and Urban Systems*.
- [9] **Park, J.** & Goldberg, D. W. (2022). An examination of the stochastic distribution of spatial accessibility to intensive care unit beds during the COVID-19 pandemic: a case study of the Greater Houston area of Texas. *Geographical Analysis*. <https://doi.org/10.1111/gean.12340>
- [8] **Park, J.**, Kang, J.-Y., Goldberg, D. W. & Hammond, T. A. (2022). Leveraging temporal changes of spatial accessibility measurements for better policy implications: a case study of electric vehicle (EV) charging stations in Seoul, South Korea. *International Journal of Geographical Information Science*, 36(6), 1185–1204. <https://doi.org/10.1080/13658816.2021.1978450>
- [7] **Park, J.** & Goldberg, D. W. (2021). A review of recent spatial accessibility studies that benefitted from advanced geospatial information: Multimodal transportation and spatiotemporal disaggregation. *ISPRS International Journal of Geo-Information*, 10(8). <https://doi.org/10.3390/ijgi10080532>
- [6] Kang, J.-Y. & **Park, J.** (2021). Measuring spatial accessibility to COVID-19 testing sites: a case study of Seoul. *Journal of the Korean Geographical Society*, 56(2), 231–244. <https://doi.org/10.22776/kgs.2021.56.2.231>
- [5] **Park, J.**, Choi, M. & Kang, J.-Y. (2021). Spatial optimization of indoor sports stadium seats under social distancing practice during the COVID-19 pandemic. *Journal of the Korean Geographical Society*, 56(1), 53–66. <https://doi.org/10.22776/kgs.2021.56.1.53>

- [4] **Park, J.**, Goldberg, D. W. & Hammond, T. (2020). A comparison of network model creation algorithms based on the quality of wayfinding results. *Transactions in GIS*, 24(3), 602–622. <https://doi.org/10.1111/tgis.12632>
- [3] **Park, J.**, Park, J. & Choi, J. (2018). An air pollution exposure on floating population using air pollution dispersion model. *The Geographical Journal of Korea*, 52(2), 193–204.
- [2] Do, M. S., Lee, J., Jang, H., Kim, D., **Park, J.** & Yoo, J. (2017). Spatial distribution patterns and prediction of hotspot area for endangered herpetofauna species in Korea. *Korean Journal of Environment and Ecology*, 31(4), 381–396.
- [1] **Park, J.**, Choi, J. & Hong, S. Y. (2016). Comparison between the road-based and the parcel-based address coordinates for urban air pollution estimation - a case study of Yeongdeungpo-gu, Seoul, Korea. *Journal of Cadastre & Land InformatiX*, 46(2), 169–181.

## Conference Proceedings

- [2] Lyu, F., Yang, Z., Xiao, Z., Diao, C., **Park, J.** & Wang, S. (2022). Cybergis for scalable remote sensing data fusion. *Practice and Experience in Advanced Research Computing*. <https://doi.org/10.1145/3491418.3535145>
- [1] Lee, K., **Park, J.** & Choi, J. (2015). A comparison of image aligning and correcting software with an unmanned aerial system. *Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings*, (1), 48.

## PRESENTATIONS

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### Oral Presentations

- [13] **Park, J.** & Goldberg, D. W. (2021, June 7–9). *Measuring spatial accessibility to ICU beds under the uncertainty of supply and mobility*. University Consortium for Geographic Information Science (UCGIS) Symposium 2021, Virtual. Honorable mention in Paper Awards.
- [12] **Park, J.**, Kang, J.-Y. & Goldberg, D. W. (2021, April 7–11). *Examining 24-hour fluctuation of spatial accessibility from temporal dynamics in supply, demand, and mobility: a case study of electric vehicle (EV) charging stations in southeast Seoul, the Republic of Korea*. The Annual Meeting of the American Association of Geographers, Virtual. A finalist in AAG-GISS SG Student Honors Paper Competition.
- [11] **Park, J.** (2020, November 16–18). *Spatiotemporal dynamics of accessibility: a case study of electric vehicle (EV) charging stations in southeast Seoul, South Korea*. Texas GIS Day 2020, Virtual. Awarded 1<sup>st</sup> place in Paper Competition.
- [10] **Park, J.**, Kang, J.-Y. & Goldberg, D. W. (2020, November 13). *The importance of temporal dynamics for enhancing the accuracy of the spatial accessibility measurement: a case study of EV charging stations in Seoul, South Korea*. the Annual Meeting of the Korean Geographical Society, Virtual.
- [9] **Park, J.**, Goldberg, D. W. & Hammond, T. (2020, July 13–16). *Comparisons of network generation algorithms by automated extraction from BIMs*. Esri User Conference, Virtual.
- [8] **Park, J.** (2019, November 12). *Comparisons of network generation algorithms by automated extraction from Building Information Modeling*. Texas A&M University GIS Day 2019, College Station, Texas, USA. Awarded 1<sup>st</sup> place in Paper Competition.
- [7] **Park, J.**, Yin, Z. & Goldberg, D. W. (2019, April 2–7). *An automated indoor network extraction from Building Information Modeling*. The Annual Meeting of the American Association of Geographers, Washington, DC, USA.
- [6] **Park, J.** (2019, March 18–22). *An automated indoor network extraction from Building Information Modeling*. The 22<sup>nd</sup> Annual Student Research Week, Texas A&M University, College Station, TX, USA. Awarded 2<sup>nd</sup> place in the Graduate Geoscience Oral Presentation.
- [5] **Park, J.** & Goldberg, D. W. (2019, March 5–8). *An automated indoor network extraction from building information modeling*. 2019 Esri Developer Summit, Palm Springs, CA, USA.

- [4] **Park, J.** (2017, October 25–28). *Korea's environmental issues and the national atlas of Korea vol. II*. The Annual Meeting of the Southwest Division of the American Association of Geographers, Huntsville, TX, USA.
- [3] **Park, J.** & Choi, J. (2016, March 29–April 2). *Comparison of address locations during the address system transition in Korea*. The Annual Meeting of the American Association of Geographers, San Francisco, CA, USA.
- [2] **Park, J.,** Park, J. & Choi, J. (2015, October 9–12). *Estimation of actual exposure to air pollution for floating population*. The 10<sup>th</sup> China-Japan-Korea Joint Conference & 1st Asian Conference on Geography, Shanghai, China. Awarded the Winner of Outstanding Paper Award.
- [1] **Park, J.,** Choi, D., Na, Y. G., Lee, B. & Choi, J. (2014, July 6–9). *Comparison of road name address and parcel-based address for line source air pollution dispersion*. The 9<sup>th</sup> Korea-China-Japan Joint Conference on Geography, Busan, Korea.

## Poster Presentations

- [5] **Park, J.,** Goldberg, D. W., Lybrand, B. & Meador, J. (2018, April 10–14). *3D visualization of CAD Data for an evacuation plan*. The Annual Meeting of the American Association of Geographers, New Orleans, LA, USA.
- [4] Choi, J. & **Park, J.** (2016, March 29–April 2). *Correlation between air pollution dispersion and floating population*. The Annual Meeting of the American Association of Geographers, San Francisco, CA, USA.
- [3] Choi, J., **Park, J.** & Lee, K. (2015, April 21–25). *Importance of road name address for line source air pollution dispersion*. The Annual Meeting of the American Association of Geographers, Chicago, IL, USA.
- [2] **Park, J.,** Choi, D. & Park, W. (2014, June 20–21). *The validity of new geocoding system using line source air pollution dispersion model*. The Annual Meeting of the Korean Geographers, Seoul, Korea.
- [1] **Park, J.** (2010, May 27–28). *A spatial analysis of the shopping district in front of Kyung Hee University*. The Annual Meeting of the Korean Geographers, Seoul, Korea.

## Invited Talks

- [11] *Indispensable Temporal Dynamics: Enhancing Accuracy of Spatial Accessibility Measurements*. 2022 KHU-UWG Geo-Spatial Workshop. July 21, 2022. Carrollton, GA, USA.
- [10] *Introduction to Python Programming*. Guest Lecture for UIUC GEOG380 (GIS II Spatial Prob Solving). April 12, 2022. Urbana, IL, USA.
- [9] *Advancing Spatial Accessibility Measurements to Urban Infrastructure: Uncovering Temporal Dynamics and Uncertainty*. KAGES-KHU Bridging Network Seminar. April 1, 2022. Virtual.
- [8] *Campus Operations GIS*. Texas GIS Day 2021. November 16, 2021. Virtual.
- [7] *Measuring spatial accessibility to intensive care unit (ICU) beds under the uncertainty of supply and mobility*. AAG Geospatial Fellows Webinar Series. July 12, 2021. Virtual.
- [6] *The domain expansion of spatial accessibility*. Young Korean Geographers Forum II, Korean-American Association for Geospatial and Environmental Sciences. April 9, 2021. Virtual.
- [5] *Efficient infrastructure placements with spatial analysis*. Department of Geography Education, Kongju National University, South Korea. November 18, 2020. Virtual.
- [4] *Automated indoor network extraction from Building Information Modeling*. 2019 KHU-UWG Geo-Spatial Workshop. July 26, 2019. Carrollton, GA, USA.
- [3] *An approach about interoperability between Geographic Information Science and Building Information Modeling*. Young Korean Geographers Forum I, Korean-American Association for Geospatial and Environmental Sciences. April 4, 2019. Washington, DC, USA.
- [2] *3D Aggeland*. Texas A&M University GIS Day 2018. November 11, 2018. College Station, Texas, USA.
- [1] *Hands-on 3D mapping*. Texas A&M University GIS Day 2018. November 11, 2018. College Station, Texas, USA.

## FUNDS & GRANTS

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<b>CO-PI</b> , Geospatial Fellows for Advancing COVID-19 Research & Education, Geospatial Software Institute of University of Illinois Urbana-Champaign, with PI: Dr. Daniel W. Goldberg (Ph.D. Advisor)	2020  USD 4,200
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## PROFESSIONAL EXPERIENCE

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<b>Administrative Staff</b> Department of Geography, Kyung Hee University, Seoul, Korea	2016–2017
<b>Researcher &amp; Software Engineer</b> IMU Korea (Intergraph Mapping & Utilities Korea Ltd.), Seongnam, Gyeonggi, Korea	2012–2014

## ACADEMIC SERVICES

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<b>Director</b> Cyber Infrastructure Specialty Group (CISG), American Association of Geographers	2021–2023
<b>Student Director</b> Cyber Infrastructure Specialty Group (CISG), American Association of Geographers	2020–2021
<b>Treasurer</b> Korean-American Scientists and Engineers Association at Texas A&M University	2017–2019
<b>Student Board Member</b> Korea-America Association for Geospatial and Environmental Sciences	2018–2019
<b>Vice Chief Student Leader</b> Association of Geography Graduate Student, Texas A&M University	2018–2019
<b>Annual Meeting Coordinator</b> The Korean Geographical Society	2015–2016

## PROFESSIONAL SOCIETY MEMBERSHIPS

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Association of American Geographers (AAG)

University Consortium for Geographic Information Science (UCGIS)

Asian Geographical Association (AGA)

Korean-American Scientists and Engineers Association (KSEA)

Korea-America Association for Geospatial and Environmental Sciences (KAGES)

The Korean Geographical Society (KGS)