# Dr. Joon-Seok Kim

# **Curriculum Vitae**

Department of Geography and Geoinformation Science, George Mason University 4400 University Drive, MSN 6C3, Fairfax, VA 22030, USA

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Education		
2016	<b>Ph.D. in Electrical and Computer Engineering</b> , Pusan National University, Korea, <i>Preserving Location Anonymity in Indoor Spaces</i> [http://joon-seok.github.io/Thesis]	
2007	M.E. in Computer Engineering, Pusan National University, Korea	
2005	B.E. in Computer Science and Engineering, Pusan National University, Korea	
Professiona	al Appointments	
Apr. 2018- present	Postdoctoral Research Fellow, George Mason University, Fairfax, VA, USA	
Mar. 2017- Mar. 2018	Postdoctoral Researcher, Pusan National University, Busan, South Korea	
Aug. 2016- Feb. 2017	<b>Associate Research Engineer</b> , Pusan National University Research Institute of Computers, Information and Communication, Busan, South Korea	
May 2016- Nov. 2016	Geospatial Expert, United Nations Global Service Centre, Brindisi, Italy	
Grants		
Internal Gr	ant	
Jun 2020- Oct 2020	George Mason University, "Calibrating Geosimulations to Fight COVID-19", (\$12,929) PI: Andreas Züfle, Role: Co-PI	
Awards		
Aug 2020	<b>4th-Place Winner</b> , Challenge on Mobility Intervention for Epidemics (PAPW 2020)	
July 2020	Best Paper Award Runner-Up, IEEE MDM 2020	
May 2020	Best Presentation Award, Virginia Washington Metro Regional Conference 2020	
Nov 2019	1st-Place Winner (\$500), ACM SIGSPATIAL Cup 2019	
Nov 2019	Best Poster Award, KOCSEA Technical Symposium	
Aug 2019	<b>Best Vision Paper Award Runner-Up</b> , International Symposium on Spatial and Temporal Databases (SSTD)	
Aug 2019	<b>1st-Place Winner</b> (\$1,000), Competition: Most impending problems in Seoul and proposed solutions, Seoul Business Agency	

Aug 2017 **1st-Place Winner** (\$500), OSGeo Student Award, Free and Open Source Software for Geospatial (FOSS4G)
Oct 2012 **Best Paper Award**, Conference on Geo-Spatial information (CogSI)
Nov 2007 **Best Presentation Award**, Web and Wireless GIS

### **Publications**

Table 1: Summary of Publications and Impact

	Total
Refereed Publications	28
Journal Publications	7
Refereed Conference Publications	21
Citations <sup>1</sup>	242
h-index	8
i10-index	6

### **Peer Reviewed Journals**

- **J.-S. Kim**, and K.-J. Li, "Simplification of Geometric Objects in an Indoor Space," *ISPRS Journal of Photogrammetry and Remote Sensing*, January 2019, Volume 147, pp. 146-162
- J.-S. Kim, S. Kim, and K.-J. Li, "Retrieving Building Objects through 3D Intersection Operations based on Open Source Software", *Journal of the Korean Society for Geospatial Information Science*, March 2018, Volume 26, Issue 1, pp. 11-21
- J.-S. Kim, and K.-J. Li, "Location K-anonymity in indoor spaces," *GeoInformatica*, July 2016, Volume 20, Issue 3, pp. 415-451
- J.-S. Kim, S.-J. Yoo, and K.-J. Li, "A Linkage between IndoorGML and CityGML using External Reference," *Journal of Korea Spatial Information Society*, February 2014, Volume 22, Issue 1, pp. 65-73
- J.-S. Kim, and K.-J. Li, "K-Anonymity using Hierarchical Structure in Indoor Space," *Journal of Korea Spatial Information Society*, August 2012, Volume 20, Issue 4, pp. 93-101
- H.-Y. Kang, J.-S. Kim, J.-R. Hwang, and K.-J. Li, "Similarity measures for trajectories of moving objects in cellular space," *Journal of Korea Spatial Information Society*, November 2008, Volume 16, Issue 3, pp. 291-301
- **J.-S. Kim**, K.-J. Li, B.-T. Jang, and J.-J. You, "Continuous Perspective Query Processing for 3D Objects on Road Networks," *Journal of GIS Association of Korea*, July 2007, Volume 15, Issue 2, pp. 95-109

<sup>&</sup>lt;sup>1</sup>Citations, h-index and i10-index are based on Google Scholar: <a href="https://scholar.google.com/citations?user=cAE-vgwAAAAJ">https://scholar.google.com/citations?user=cAE-vgwAAAAJ</a>

### **Peer Reviewed Conference Proceedings**

- J. Pesavento, A. Chen, R. Yu, J.-S. Kim, H. Kavak, T. Anderson, and A. Züfle, "Data Driven Mobility Models for COVID-19 Simulation," *In Proceedings of the 3rd ACM SIGSPATIAL Workshop on Advances in Resilient and Intelligent Cities (ARIC 2020)*, November 2020, pp. 29-38
- **J.-S. Kim**, D. Pfoser, and A. Züfle, "Vehicle Relocation for Ride-Hailing," *In Proceedings of the 7th IEEE International Conference on Data Science and Advanced Analytics (DSAA 2020)*, October 2020, pp 589-598
- J.-S. Kim, H. Jin, H. Kavak, O. Rouly, A. Crooks, D. Pfoser, C. Wenk, and A. Züfle, "Location-Based Social Network Data Generation Based on Patterns of Life," *In Proceedings of IEEE International Conference on Mobile Data Management (MDM 2020)*, July 2020, pp. 158-167
- X. Teng, G. Trajcevski, J.-S. Kim, and A. Züfle, "Semantically Diverse Path Search," In Proceedings of IEEE International Conference on Mobile Data Management (MDM 2020), July 2020, pp. 69-78 (Best Paper Runner-Up Award)
- J.-S. Kim, and C. Wenk, "Simplification of Indoor Space Footprints," *In Proceedings of 1st ACM SIGSPATIAL International Workshop on Spatial Gems (SpatialGems* 2019), November 5-8, 2019. Chicago, IL, USA (accepted)
- **J.-S. Kim**, H Kavak, U. Manzoor, A. Crooks, D. Pfoser, C. Wenk, and A. Züfle, "Simulating Urban Patterns of Life: A Geo-Social Data Generation Framework," *In Proceedings of ACM SIGSPATIAL GIS '19*, November 2019, pp. 576-579
- X. Teng, J. Yang, J.-S. Kim, G. Trajcevski, M. A. Nascimento, and A. Züfle, "Fine-Grained Diversification of Proximity Constrained Queries on Road Networks," *In Proceedings of International Symposium on Spatial and Temporal Databases (SSTD* 2019), August 2019, pp. 51-60
- H. Kavak, J.-S. Kim, A. Crooks, D. Pfoser, C. Wenk, and A. Züfle, "Location-Based Social Simulation," In Proceedings of International Symposium on Spatial and Temporal Databases (SSTD 2019), August 2019, pp. 218-221 (Best Vision Paper Runner-Up Award)
- J.-S. Kim, H. Kavak, U. Manzoor, and A. Züfle, "Advancing Simulation Experimentation Capabilities with Runtime Interventions," *In Proceedings of 2019 Spring Simulation Conference*, April 2019, 11 pages
- T. Kim, J.-S. Kim, B. Azamat, D. Kim, and K.-J. Li, "GR-Media: Spatial Reference Model for Geo-Referenced Media," In Proceedings of the Tenth International Conference on Creative Content Technologies (CONTENT 2018), February 2018, pp. 14-17
- H.G. Ryoo, S. Kim, J.-S. Kim, and K.-J. Li, "Development of an extension of GeoServer for handling 3D spatial data," *Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings*, 2017, Vol. 17, Issue 1, Article 6. (*OSGeo Student Award 1st-Place Winner*)
- J.-S. Kim, "Linear mapping for indoor spatial objects," In Proceedings of the Seventh ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness (ISA '15), November 2015, Article 3, 4 pages

- J.-S. Kim, S.-J. Yoo, and K.-J. Li, "Integrating IndoorGML and CityGML for Indoor Space," *Web and Wireless Geographical Information Systems*, Seoul, South Korea, LNCS 8470, 2014, pp. 184-196
- J.-S. Kim, S. H. Kim, and K.-J. Li, "Automatic geotagging and querying of indoor videos," *In Proceedings of the Fifth ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness*, November 2013, pp. 50-53
- J.-S. Kim, Y. Han, and K.-J. Li, "K-anonymity in Indoor Spaces through Hierarchical Graphs," *In Proceedings of the Fourth ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness*, November 2012, pp. 21-28
- D. Jang, J.-S. Kim, C.-H. Joo and K.-J. Li, "Overlapping and Synchronizing Two Worlds," *In Proceedings of ACM SIGSPATIAL GIS '11*, November 1-4, 2011. Chicago, IL, USA, pp. 493-496
- H.-Y. Kang, **J.-S. Kim**, and K.-J. Li, "sTrack: tracking in indoor symbolic space with RFID sensors," *In Proceedings of ACM SIGSPATIAL GIS '10*, November, 2010, San Jose, USA, pp.502-505
- H.-Y. Kang, **J.-S. Kim**, and K.-J. Li, "Similarity Measures for Trajectory of Moving Objects in Cellular Space," *In Proceedings of ACM SAC 2009*, pp.1325-1330
- J.-S. Kim, H.-Y. Kang, and K.-J. Li, "Topology of the Prism Model for 3D Indoor Spatial Objects," *In Proceedings of 2009 Tenth International Conference on Mobile Data Management: Systems, Services and Middleware*, Taipei, Taiwan, May 18, 2009, pp. 698-703
- J.-S. Kim, K.-S. Kim, and K.-J. Li, "Continuous Perspective Query Processing for 3-D Objects on Road Networks," *Web and Wireless Geographical Information Systems*, 2007, Cardiff, UK, LNCS 4857, pp. 1-15 (*Best Presentation Award*)
- O. Kwon, S.-H. Lee, J.-S. Kim, M. Kim, and K.-J. Li, "Collision Prediction at Intersection in Sensor Network Environment," In Proceedings of IEEE Conference on Intelligent Transportation Systems (ITSC 06), Toronto, Canada, 2006, pp. 982-987

### **Editorials**

- T. Anderson, **J.-S. Kim**, and A. Shashidharan (Eds.). 2020. *GeoSim '20: Proceedings of the 3rd ACM SIGSPATIAL International Workshop on GeoSpatial Simulation*. ACM, New York, NY, USA
- H. Kavak, **J.-S. Kim**, and S. Wise (Eds.). 2019. *GeoSim '19: Proceedings of the 2nd ACM SIGSPATIAL International Workshop on GeoSpatial Simulation*. ACM, New York, NY, USA
- H. Kavak, **J.-S. Kim**, and U. Manzoor (Eds.). 2018. *GeoSim'18: Proceedings of the 1st ACM SIGSPATIAL International Workshop on GeoSpatial Simulation*. ACM, New York, NY, USA

#### **Newsletter Articles**

• **J-S. Kim**, H. Kavak, A. Züfle, T. Anderson, "COVID-19 Ensemble Models Using Representative Clustering," *SIGSPATIAL Special*, July 2020, Volume 12, Issue 2, pp 33-41

- J-S. Kim, H. Kavak, C. O. Rouly, H. Jin, A. Crooks, D. Pfoser, C. Wenk, A. Züfle, "Location-Based Social Simulation for Prescriptive Analytics of Disease Spread," *SIGSPATIAL Special*, March 2020, Volume 12, Issue 1, pp 53-61
- **J-S. Kim**, H. Kavak, D. Pfoser, A. Crooks, C. Wenk, and S. Wise, "GeoSim 2019 workshop report the 2st ACM SIGSPATIAL international workshop on geospatial simulation," *SIGSPATIAL Special*, February 2020, Volume 11, Issue 3, pp 20-22
- **J-S. Kim**, H. Kavak, A. Züfle, A. Crooks, U. Manzoor, and P. M. Torrens, "GeoSim 2018 workshop report the 1st ACM SIGSPATIAL international workshop on geospatial simulation," *SIGSPATIAL Special*, January 2019, Volume 10, Issue 3, pp 28-29
- **J.-S. Kim**, H. Kavak, and A. Crooks, "Procedural city generation beyond game development," *SIGSPATIAL Special*, November 2018, Volume 10, Issue 2, pp 34-41

## **Non-Peer Reviewed Conference Proceedings**

- J.-S. Kim, H. Jin, and A. Züfle, "Expert-in-the-Loop Prescriptive Analytics using Mobility Intervention for Epidemics," 1st SIGKDD International Workshop on Prescriptive Analytics for the Physical World (PAPW 2020), August 2020
- A. Züfle, G. Trajcevski, D. Pfoser, and J.-S. Kim, "Managing Uncertainty in Evolving Geo-Spatial Data," In Proceedings of IEEE International Conference on Mobile Data Management (MDM 2020), July 2020, pp. 5-8
- J.-S. Kim, D. Pfoser, and A. Züfle, "Distance-Aware Competitive Spatiotemporal Searching Using Spatiotemporal Resource Matrix Factorization (GIS Cup)," *In Proceedings of ACM SIGSPATIAL GIS '19*, November 2019, pp. 624-627 (*1st-Place Winner*)
- J.-S. Kim, T.-H. Lee, and K.-J. Li, "Prism Geometry: Simple and Efficient 3-D Spatial Model" (Extended Abstract), *In Proceeding of 3rd International Workshop on 3D Geo-information*, Seoul, Korea, 2008, pp. 139-145

## **Non-Peer Reviewed Conference Proceedings (in Korean)**

- H. Jeong, **J.-S. Kim**, and K.-J. Li, "Design of Java API for manipulation of IndoorGML data," *In Proceedings of Conference on Geo-Spatial information* (CogSI), October 2017, pp. 133-134
- C.-H. Joo, **J.-S. Kim**, and K.-J. Li, "Method for Generating IndoorGML Derived from CityGML," *In Proceedings of CogSI*, October 2012, pp. 38-41 (*Best Paper Award*)
- S.-J. Yoo, **J.-S. Kim**, and K.-J. Li, "Data Model for Geo-Contents," *In Proceedings of Conference on CogSI*, October 2012, pp. 46-49
- Y. Han, **J.-S. Kim**, and K.-J. Li, "Web-based Indoor Geo-Contents Authoring Tool," *In Proceedings of CogSI*, October 2012, pp. 163-164
- J. Kim, J.-S. Kim, and K.-J. Li, "Continuous Query Processing for Indoor Moving Objects through Broadcasting," *In Proceedings of CogSI*, May 2011, pp. 134-135

- D.-S. Jang, H.-C. Kim, J.-H. Kim, J.-S. Kim, and K.-J. Li, "A Performance Comparison of 3-D Spatial Operation between Prism Model and B-Rep Model," *In Proceedings of the Korean Association of Geographic Information Studies Conference*, October 2010, pp. 303-305
- J.-H. Kim, **J.-S. Kim**, and K.-J. Li, "A Basic Study for Synchronized Reality," *In Proceedings of the Korean Association of Geographic Information Studies Conference*, April 2009, pp. 277-278

#### **Patents**

- Ki Joune Li, Hye Young Kang, and **Joon Seok Kim**, *Object tracking apparatus and method, and sensor position designating method*, US Patent App. 13/512,091, 2009-12-01
- Ki Joune Li, **Joon Seok Kim**, Hye Young Kang, and Tae-hoon Li, *The method for representing 3D object, The method for processing query of topology about 3D object and the apparatus thereof*, Korean Patent Application, 1020090111132, 2009-11-17
- Ki Joune Li, Chang Seung Moon, Hye Young Kang, **Joon Seok Kim**, Jae Hun Kim, Byung Ju Hwang, Eun Soo Jin, Yong Soo Song, and Chan Hyun Kang, *System and Method for indoor space emboding and indoor moving object visualing on google earth*, Korean Patent Application, 1020090054999, 2009-06-19

## **Conference Activity/Participation**

## **Workshops Organized**

- T. Anderson, J.-S. Kim, and A. Shashidharan, The 3rd ACM SIGSPATIAL International Workshop on Geospatial Simulation
- H. Kavak, **J.-S. Kim**, and S. Wise, The 2nd ACM SIGSPATIAL International Workshop on Geospatial Simulation
- H. Kavak, J.-S. Kim, and U. Manzoor, The 1st ACM SIGSPATIAL International Workshop on Geospatial Simulation

### **Presentations**

- **J.-S. Kim**, *Distance-Aware Competitive Spatiotemporal Searching*, Virginia Washington Metro Regional Conference 2020, May 9, 2020 (*Best Presentation Award*)
- **J.-S. Kim**, Simulating Geo-Social Society through Geospatial Data Lifecycle, Colloquium: The University of Minnesota-Twin Cities, March 20, 2020
- J.-S. Kim, Distance-Aware Competitive Spatiotemporal Searching Using Spatiotemporal Resource Matrix Factorization, 20th KOCSEA Technical Symposium 2019, November 16-17, 2019, Atlanta, Georgia, USA (Best Poster Award)
- S. H. Kim, J.-S. Kim, *Integrated Platform of Visual Data for Smart City*, UKC-Seoul City Forum, August 16, 2019, Chicago, IL, USA (*1st-Place Winner*)

- **J.-S. Kim**, *Indoor Map Matching*, UKC-CIT Session: Machine Learning and AI, August 16, 2019, Chicago, IL, USA
- J.-S. Kim, Agent-Based Simulation Framework for Decision Making in Disease Prevention and Epidemic Control, 2019 KWiSE HIH-DC Chapter Symposium, May 4, 2019, Vienna, VA, USA
- **J.-S. Kim**, *Agent-Based Simulation Framework to Generate Location Data*, 19th KOCSEA Technical Symposium 2018, November 10-11, 2018, Silicon Valley, California, USA
- J.-S. Kim, UN Open GIS Architecture, 2rd UN Open GIS Workshop, November 7-11, 2016, Seoul, Korea
- **J.-S. Kim**, T. Kim, and K.-J. Li, *ISA Server An Indoor Spatial Data Server*, FOSS4G Seoul 2015, September 14-19, 2015, Seoul, Korea
- **J.-S. Kim**, *Prism Model: Alternative 3D Spatial Model with Simplicity and Efficiency*, IMSC Retreat 2013, March 7, 2013, Los Angeles, California, USA
- **J.-S. Kim**, *IndoorGML: Indoor Spatial View Services*, OGC 3D Summit 2011, September 20, 2011, Boulder, Colorado, USA

## **Teaching Experience**

## **University Teaching Activities (Lecturer)**

- Scientific Data Mining for Geoinformatics (GGS 787), Spring'20, George Mason University
- Introduction to GIS Programming and Algorithms (GGS 650), Fall'19, George Mason University
- Introduction to Open Source Software Development, Spring'17, Pusan National University
- Java Programming, Spring'17, Pusan National University
- Object-Oriented Programming, Fall'10, Pusan National University
- Computer Programming, Fall'08, Pusan National University

#### **Guest Lectures**

- GGS Colloquium, Fall'19, George Mason University
- Spatial Computing, Spring'19, Fall'19, George Mason University
- Spatial Data Structure, Spring'19, George Mason University
- File Structure, Spring'17, Pusan National University

### **Online Lectures**

• ISO 19107 – Geographic Information – Spatial Schema, 2008, National Education Center for GIS

### **Teaching Assistant**

- Databases, Spring'07, Pusan National University
- File Structure, Spring'05, Spring'06, Pusan National University
- Data Structure, Fall'05, Pusan National University
- C Programming, Fall'05, Pusan National University

## **Mentoring Experience**

Graduate Students (mentoring as a Spatio-TEMporal database (STEM) Lab Leader)

- Tae-Hoon Lee (2007-2008)
- Byung-Ju Hwang (2008-2012)
- Eunsoo Jin (2008-2009)
- Jae-Hoon Kim (2008-2010)
- Yong-Soo Song (2008-2010)
- Dae-Sung Jang (2010-2011)
- Ho-Chul Kim (2010-2011)
- Ji-Hyun Kim (2010-2011)
- Chi-Hyun Joo (2011-2012)
- Sung-Jae Yoo (2012-2013)
- Taehoon Kim (2012-2017)
- Yangsoo Han (2012-2013)
- Bo Geun Kim (2013-2014)
- Donguk Seo (2015-2016)
- Hyung-Gyu Ryoo (2014-2017)
- Soojin Kim (2016-2017)

## **High School Students**

- Aspiring Scientists Summer Internship Program (ASSIP) co-mentor (2020)
  - John Pesavento (Thomas Jefferson High School for Science and Technology)

- Andy Chen (Thomas Jefferson High School for Science and Technology)
- Rayan Yu (James Madison High School)

# **Expertise and Research Interests**

- Geospatial Information Sciences
- Geospatial Simulation
- Spatial and Spatiotemporal Databases, Big Data
- Spatiotemporal Data Mining
- Prescriptive Analytics
- Location-Based Services
- Location Privacy
- 3-D Spatial Data Modeling
- Open Geospatial Consortium (OGC) Standards

### **Skills**

- Programming language: C, C++, Objective-C, C#, Java, Python, Scala
- Web development: React, PHP, ASP.NET, HTML, CSS, JavaScript, Typescript, D3, jQuery, Django, CodeIgniter
- Databases: Oracle SDO, MySQL, PostGIS, SQL Server, Altibase, Kairos
- Geospatial library/software: GeoTools, JTS, OpenGeo Suite, QGIS, GeoSHAPE, GeoNode, GeoServer, CGAL, LEDA, ArcGIS, GoogleEarth, GoogleMap, Sketchup
- Tools related Data Science: Spark, Hadoop, NiFi, Flume, R, Kafka, Zeppelin, Jupyter
- Simulation toolkit: MASON, GeoMason, NetLogo
- Mobile programming: iOS, Android

## **Projects**

- George Mason University, COS-VSE Collaborative Seed, "Calibrating Geosimulations to Fight COVID-19," 2020.06-Present, (\$12,929), PI: Andreas Züfle, Role: Co-PI
- National Science Foundation, "RAPID: An Ensemble Approach to Combine Predictions from COVID-19 Simulations," 2020.05-Present, (\$199,998), PI: Taylor Anderson, Role: Senior Personnel
- Defense Advanced Research Projects Agency, "A Ground-Truth Simulator for Socio-Spatial Alternate Worlds (GT-S3)," 2018.04-Present, (\$1,544,290), PI: Andreas Züfle, Role: Senior Personnel
- Ministry of Land, Infrastructure, and Transport, *Development of World-Leading Indoor Spatial Core Technologies and its Test Bed* (iNous Project), 2017.07.31-2018.04, Role: Senior Personnel
- Ministry of Culture, Sports and Tourism (MCST) and Korea Creative Content Agency (KOCCA), The Culture Technology(CT) Research & Development Program, 2017.06-2018.04, Role: Senior Personnel
- Agency for Defense Development, "Development of Open Source GIS for Military," 2016.11-2018.04, Role: Senior Personnel
- Ministry of Land, Infrastructure, and Transport, "Development of Open Source Geospatial Software," 2014.08.14-2018.04, Role: Senior Personnel
- Integrated Media Systems Center (IMSC) at the University of Southern California (USC), *MediaQ Project* [https://mediaq.joonseok.org], 2013.02.-2013.09., Role: Collaborator
- Ministry of Land, Transport and Maritime Affairs, "Development for Advanced Technology of Realistic 3D GI," 2011.12.16-2016.06.29, Research Grant supported from Cutting-edge Urban Development - Korean Land Spatialization Research Project, Role: Research Associate
- Ministry of Land, Transport and Maritime, "Indoor Spatial Awareness: Applications and Development Indoor Spatial DB using Architecture Drawings," 2007.11.27-2012.04.26, Research Grant supported from Cutting-edge Urban Development Korean Land Spatialization Research Project, Role: Research Associate
- Ministry Of Construction & Transportation, "Application Model Development of 3D Geospatial Database: The Study on the Data Format for the Three Dimensional Geospatial Data," 2006.11.27-2007.09.22, Role: Research Associate
- Electronics and Telecommunications Research Institute, "Telematics Applications based On Ubiquitous Sensor Network," 2005.02-2006.01, Role: Research Associate
- Electronics and Telecommunications Research Institute, "Query Processing for moving objects on Road Networks," 2004.07-2005.01, Role: Research Assistant

### **Professional Service**

#### **Editorial Service**

• Co-guest editor of the Special Issue: "Geo-Enriched Data Modeling & Mining", ISPRS International Journal of Geo-Information (IJGI)

### **Editorial Boards**

• Frontiers in Sustainable Cities: Smart Technologies and Cities (2020-present)

### **Program Co-Chair**

• ACM SIGSPATIAL International Workshop on GeoSpatial Simulation (GeoSim 18'-20')

### **Program Track Chair**

- Annual Modeling and Simulation Conference 2021 (Track: AI and Simulation)
- Spring Simulation Conference 2020 (Track: AI and Simulation)

## **Program Committee**

- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems 2020
- 1st ACM SIGSPATIAL International Workshop on Modeling and Understanding the Spread of COVID-19 (COVID-2020)
- Winter Simulation Conference 2020 (Track: Data Science for Simulation)
- 6th International ACM SIGMOD Workshop on Managing and Mining Enriched Geo-Spatial Data (GeoRich 2020)
- Spring Simulation Conference 2020 (Track: Annual Simulation Symposium)
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems 2019
- Winter Simulation Conference 2019 (Track: Big Data in Simulation)

#### **Review Activities**

- International Journal of Geographical Information Science
- ISPRS Journal of Photogrammetry and Remote Sensing
- ACM Transactions on Spatial Algorithms and Systems
- Geoinformatica
- Journal of Network and Computer Applications

- Earth Science Informatics
- Frontiers in Big Data
- IEICE TRANSACTIONS on Information and Systems
- Conference on Information and Knowledge Management (CIKM)
- IEEE International Conference on Data Engineering (ICDE)
- ACM SIGSPATIAL
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
- Conference on Geographic Information Science (GIScience)
- International Conference on Database Systems for Advanced Applications (DASFAA)
- Winter Simulation Conference (WinterSim)
- Spring Simulation Conference (SpringSim)

## **Community Outreach Activity**

## **US Non-Profit Organization**

 Korean-American Scientists and Engineers Association (KSEA), 48-49<sup>th</sup> IT Director as a volunteer (2020)

### **Professional Membership**

- UN Open GIS Initiative
- ACM SIGSPATIAL
- American Association of Geographers (AAG)
- IEEE Technical Committee on Simulation (TCSIM)
- ICT standard expert, Telecommunication Technology Association (TTA)
- Korean-American Scientists and Engineers Association (KSEA)
- Korean Computer Scientists and Engineers Association of America (KOCSEA)
- Korean-American Association for Geospatial and Environmental Science (KAGES)

- Korean Society for Geospatial Information Science (KSIS)
- Korea Information and Communication Society (KICS)
- Korean-American Professional Association in Life Sciences (KAPAL)

Last updated November 20, 2020.