

SUNG-GHEEL JANG
CURRICULUM VITAE

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EDUCATION

Ph.D. in Regional Planning	2005
University of Illinois at Urbana-Champaign, Champaign, IL Specializing in Geographic Information System and Transportation Planning Dissertation Title: <i>Interoperable Multimodal Travel Guide System: Modeling and Implementation – A Canonical Model Approach</i>	
Master in City Planning	1996
Graduate School of Environmental Studies, Seoul National University, Seoul, Korea	
B.S. in Landscape Architecture	1994
Seoul National University, Seoul, Korea	

EMPLOYMENT AND APPOINTMENTS

Assistant Professor	Sep 2018 – present
Sustainability Studies Program, School of Marine & Atmospheric Sciences, Stony Brook University	
Director, Geospatial Center	Jan 2015 – present
Sustainability Studies Program, School of Marine & Atmospheric Sciences, Stony Brook University	
Lecturer	Sep 2013 – Aug 2018
Sustainability Studies Program, School of Marine & Atmospheric Sciences, Stony Brook University	
Assistant Professor	Aug 2007 – Aug 2013
Department of Urban Studies, Levin College of Urban Affairs, Cleveland State University	
Certificate Program Coordinator (Graduate Certificate in Urban GIS)	Aug 2007 – Aug 2013
Levin College of Urban Affairs, Cleveland State University	
Postdoctoral Research Associate	Aug 2006 – Aug 2007
Regional Economics Applications Laboratory, University of Illinois at Urbana-Champaign Expert Planning Information Systems Laboratory, University of Illinois at Urbana-Champaign	
Visiting Research Assistant Professor	Jan 2006 – Aug 2006
Expert Planning Information Systems Laboratory, University of Illinois at Urbana-Champaign	

TEACHING & RESEARCH INTERESTS

Coastal Geographic Information Systems/Sciences (GIS); environmental applications of GIS; spatial decision support systems; spatial data analytics; web mapping and web GIS applications

PUBLICATIONS

Peer-Reviewed Scholarly Work

Clark, B. Y., Brudney, J. L., **Jang, S.-G.** and Davy, B. (2019), Do Advanced Information Technologies Produce Equitable Government Responses in Coproduction? An Examination of 311 Systems in 20 US Cities, *The American Review of Public Administration*, In Press.

Bokuniewicz, H. and **Jang, S. G.** (2018), Dredging Intensity: a spatio-temporal indicator for managing marine resources, *Environmental Management*, <https://doi.org/10.1007/s00267-018-1084-8>.

Clark, B. Y., Brudney, J. L. and **Jang, S.-G.** (2013), Coproduction of Government Services and the New Information Technology: Investigating the Distributional Biases, *Public Administration Review*, 73: 687–701.

Kim, T. J. and **Jang, S.-G.** (2012), Ubiquitous Geographic Information, In W. Kresse and D. M. Danko (eds.), *Springer Handbook of Geographic Information*. Springer, Berlin, pp. 643-656.

Kang, S., Kim, T. J. and **Jang, S.-G.** (2007), Location-Based Services: Enabling Technologies and a Concierge Service Model, In H. J. Miller (ed.), *Societies and Cities in the Age of Instant Access*, Springer, Berlin, pp. 227-239.

Lee, S. M., **Jang, S.-G.**, Kim, T. J. and Kang, S. (2007), Integrated Information Systems for Highway Safety Management: Conceptual Design for Interoperability, *International Conference on Multimedia and Ubiquitous Engineering (MUE'07)*, pp. 518-523.

Jang, S.-G. and Kim, T. J. (2006), Modeling an Interoperable Multimodal Travel Guide System using the ISO 19100 Series of International Standards, *Proceedings of the 14th ACM International Symposium on Advances in Geographic Information Systems*, pp. 115-122.

Sohn, J., Hewings, G. J. D., Kim, T. J., Lee, J. S., and **Jang, S.-G.** (2004), Analysis of Economic Impacts of an Earthquake on Transportation Network, In Y. Okuyama and S.E. Chang (eds.), *Modeling Spatial and Economic Impacts of Disasters*, Springer, Berlin, pp. 233-256.

Sohn, J., Hewings, G. J. D., Kim, T. J., Lee, J. S., and **Jang, S.-G.** (2004), Retrofit Priority of Transport Network Links under an Earthquake, *Journal of Urban Planning and Development*, 129, pp. 195-210.

Jang, S.-G. and Kim, T. J. (1999), National GIS Standards: Contents and Future Directions, *Journal of Korea Spatial Information System Society*, 1 (2), pp. 99-113. (In Korean)

Book Review

Nedovic-Budic, Z. and **Jang, S.-G.** (2010), Creating Spatial Information Infrastructures: Towards the Spatial Semantic Web – Edited by Peter van Oosterom and Sisi Zlatanova, *Transactions in GIS*, 14(1), pp.89-91.

Professional Papers and Reports

Zhang, M., Bokuniewicz, H, Lin, W, **Jang, S.-G.**, and Liu, P. (2014), “NYS RISE Climate Risk Report for Suffolk and Nassau”, TR-0-14-01, New York State Institute for Storms and Emergencies.

Jang, S.-G. (2011), Preliminary Working Draft, “Geographic information – Ubiquitous public access – Reference model”, submitted to Ministry of Land, Transport and Maritime Affairs, Korea.

Jang, S.-G. (2010), “Geographic disparities in health-related characteristics among the elderly in Ohio: 2004-2008”, submitted to the Center for Health Equity, Levin College of Urban Affairs, Cleveland State University.

Jang, S.-G. (2010), “Geographical Disparities in Prevalence Rates of Overweight and Obesity, Diabetes, Self-Reported Health Status, and Uninsured Adults in Northeast Ohio, 2008”, submitted to the Center for Health Equity, Levin College of Urban Affairs, Cleveland State University.

Rosentraub, M. S. and **Jang, S.-G.** (2008), “Innerbelt Traffic Levels, Euclid Avenue and University Circle Development, and Reliever Options”, submitted to the Greater Cleveland Partnership.

Kim, T. J. and **Jang, S.-G.** (2006), “Current Status of International GIS Standards and Implications to GIS Education”, submitted to the University Consortium for Geographic Information Science (UCGIS).

ISO 19134, Geographic information – Location Based Services – Multimodal routing and navigation, developed as a leading contributor; published as International Standard by International Organization for Standardization (ISO) in January 2007.

PROFESSIONAL MEETING PRESENTATIONS

Jang, S.-G. (2015) “Geoportal for Mapping Long Island”, presented at *the 2015 Fall Long Island GIS User Conference*, November 18, 2015, Stony Brook University, NY.

Jang, S.-G. (2012) “Spatial accessibility to community gardens and parks as an indicator of measuring potential neighborhood physical activity”, presented at *the 53rd Annual Conference of the Association of Collegiate Schools of Planning*, November 1-4, 2012, Cincinnati, OH.

Jang, S.-G. (2011) “Exploring data from citizen-based bird survey using Web 2.0 mashup and open source GIS tools”, presented at the Open Source Tools & Standards in GISc Research and

Education Session to *the Association of American Geographers Annual Meeting*, April 12, 2011, Seattle, WA.

- Jang, S.-G.** and D. Taylor (2010) “Reclaiming Vacant Lands for Urban Agriculture: A GIS-based Multi-criteria Analysis”, *the 51st Annual Conference of the Association of Collegiate Schools of Planning*, October 2010.
- Jang, S.-G.** (2010) “Open Source Tools in Teaching Advanced GIS Curricula: Challenges and Prospects”, presented at the Open Source Tools & Standards in GISc Research and Education Session to *the Association of American Geographers Annual Meeting*, April 14, 2008, D.C.
- Jang, S.-G.** (2008) “Cyberinfrastructure and Complex Urban Systems Research: Prospects and Challenges”, presented at the Cyberinfrastructure-Vision Session to *the Association of American Geographers Annual Meeting*, April 17, 2008.
- Jang, S.-G.** and T. J. Kim (2007) “Semantically Interoperable Geospatial Information Processing: A Review and A Canonical Model Approach”, *the 10th Association Geographic Information Laboratories Europe (AGILE) International Conference on Geographic Information Science*, May 8-11, 2007, Aalborg, Denmark. (**Refereed**)
- Jang, S.-G.** and T. J. Kim (2007) “Semantically Interoperable Transportation Data Model: Methodology and Application”, *the 86th Transportation Research Board Annual Meeting*, January 2007, Washington, DC (**Refereed**)
- Jang, S.-G.** and T. J. Kim (2007) “Development of an Interoperable GIS using Canonical Geospatial Concepts and Methods”, presented at the Distributed Geospatial Processing-Interoperability session to *the Association of American Geographers Annual Meeting*, April 17-21, 2007, San Francisco, CA.
- Jang, S.-G.** and T. J. Kim (2005) “Interoperability and Spatial Information Sharing: Issues and Prospects”, *the 46th Annual Conference of the Association of Collegiate Schools of Planning*, October 2005.
- Jang, S.-G.** and T. J. Kim (2005) “Interoperability and Spatial Data Sharing for e-Society”, presented at the workshop, Future Cities and Regions, in conjunction with *the First International Conference on e-Social Science* at the University of Manchester, UK, June 2005.
- Jang, S.-G.** and T. J. Kim (2002) “International Standards for GIS: What are they and Implications to URISA Members”, *the 40th Annual Conference of the Urban and Regional Information Systems Association*, October 2002.
- Jang, S.-G.**, I. Kim and S. Oh (2002) “Multimodal Public Transportation Information Services for the Metropolitan Seoul”, *the 40th Annual Conference of the Urban and Regional Information Systems Association*, October 2002.
- Jang, S.-G.** and T. J. Kim (2001) “International Standards for GIS: Review, Prospects, and Implications to Planning Practice”, *the 43rd Annual Conference of the Association of Collegiate Schools of Planning*, November 2001.

RESEARCH PROPOSAL AND GRANTS

NSF Scholarships, Research Experiences, and Multi-Institutional Collaborations for Advanced Computational Science (S-STEM ACS) (Senior Personnel with PIs: David Ferguson and et al.), 2018 (Submitted)

NSF Scholarships, Research Experiences, and Multi-Institutional Collaborations for Advanced Computational Science (S-STEM ACS) (Senior Personnel with PIs: David Ferguson and et al.), 2017 (un-funded)

Mapping the American Mission to Korea (Project Participant with PI: Heejeong Sohn, Center for Korean Studies), 2016 the Faculty in the Fine Arts, Humanities, and Lettered Social Sciences (FAHSS) Interdisciplinary Project, Stony Brook University, \$10,000 (un-funded)

Cultural and Social Map of Latino Long Island (Co-PI with Adrián Pérez Melgosa, Department of Hispanic Languages, Stony Brook University), 2014-2017 the Hagedorn Foundation Grant, \$104,816 (funded)

Mapping of Human Uses Along the Mid-Atlantic Coast: Synthesizing Human Use Data and Linking (Co-PI with Anthony Dvaskas), 2015 the Mid-Atlantic Regional Council on the Ocean (MARCO) Grant, \$116,351 (un-funded)

Mapping Long Island, Phase II (Project Participant with Project Coordinator: Jennifer Anderson, Department of History), 2015 the Faculty in the Fine Arts, Humanities, and Lettered Social Sciences (FAHSS) Interdisciplinary Project, Stony Brook University, \$10,000 (un-funded)

Mapping Long Island (Project Participant with PIs: Donna Rilling and Jennifer Anderson, Department of History), 2014 the Faculty in the Fine Arts, Humanities, and Lettered Social Sciences (FAHSS) Interdisciplinary Project, Stony Brook University, \$5,500 (funded)

NSF Urban Parks and Vacant Lands as Mechanisms of Ecological and Social Stability in the Cleveland Urban Ecosystem (Senior Personnel with PIs: Michael Walton, John Mack, Terry Schwarz, Parwinder Grewal, and David Beach), 2009-2011 the NSF ULTRA-Ex (Urban Long-Term Research Area Exploratory) Award, \$272,075 (funded)

Effectiveness and Reliability of Crowdsourced Data as a Sensor for Government Service (Co-PI with Benjamin Clark), 2011 CSU Faculty Research Development Program, \$18,138 (un-funded)

An analysis of health disparities in Cuyahoga, Lorain, and Medina Counties using the 2008 Ohio Family Health Survey (Co-PI with Mark Salling), 2009-2010 Junior Faculty Mini-Grant Program by Levin College of Urban Affairs, \$7,178 (funded)

Geographic disparities in health-related characteristics among the elderly in Ohio (2004-2008) (PI), 2009-2010 Junior Faculty Mini-Grant Program by Levin College of Urban Affairs, \$8,962 (funded)

A Web-based Exploratory Mapping Tool for the Rocky River Important Bird Area (PI),
2010 Undergraduate Research and Creative Achievement by Office of the Vice Provost for Undergraduate Studies, \$6,076 (**funded**)

Geo-narrating Cleveland using Google Earth (PI),
2009 Undergraduate Research and Creative Achievement by Office of the Vice Provost for Undergraduate Studies, \$8,799 (**funded**)

ACADEMIC AND PROFESSIONAL SERVICES

Faculty Affiliate, Center for the Study of Inequalities, Social Justice, and Policy, College of Arts and Sciences, Stony Brook University (Spring 2018 – present)

Director, Geospatial Center (January 2015 – present)
Sustainability Studies Program, School of Marine & Atmospheric Sciences, Stony Brook University

Faculty Director, Geospatial Sciences Minor and Advanced Graduate Certificate Program in Geospatial Sciences (January 2015 – present)
Sustainability Studies Program, School of Marine & Atmospheric Sciences, Stony Brook University

Steering Committee, Long Island Geographic Information Systems User Group (October 2014 – present)

Member, Undergraduate Programs Committee (January 2016 – Present)
School of Marine & Atmospheric Sciences, Stony Brook University

Member, Search Committee for the Visiting Assistant Professor in GIS (Fall 2015 – Spring 2016)
Sustainability Studies Program, Stony Brook University

Coordinator, Graduate Certificate Program in Urban GIS (Fall 2007 – August 2013)
Levin College of Urban Affairs, Cleveland State University

Member, University Committee on Academic Space (Fall 2012 – August 2013)
Cleveland State University

Member, University Computational Services Committee (Fall 2008 – Spring 2012)
Cleveland State University

Board member, the Cyberinfrastructure Specialty Group (CISG) of the Association of American Geographers (April 2011 – March 2013)

Reviewer, *International Journal of Geographic Information Science*

Reviewer, *Social Science & Medicine*

TEACHING

GSS 309 ***GIS and Cartography***, GSS 509 ***Digital Cartography***
Undergraduate and graduate, Stony Brook University

GSS 313/314 ***GIS Design & Application I***, GEO/GSS 513 ***GIS Fundamentals I***
Undergraduate and graduate, Stony Brook University

GSS 317/517 ***Geospatial Narratives: Deep Mapping for Humanities and Social Sciences***
Undergraduate and graduate, Stony Brook University

GSS 323 ***GIS Database and Design***, GSS 523 ***Geodatabase and Design***

Undergraduate and graduate, Stony Brook University
 GSS 325 ***GIS Design & Application II***, GEO/GSS 525 ***GIS Fundamentals II***
 Undergraduate and graduate, Stony Brook University
 GSS 326/526 ***GIS Project Management***
 Undergraduate and graduate, Stony Brook University
 GSS 354/ GSS 554 ***Geospatial Science for the Coastal Zone***
 Undergraduate and Graduate, Stony Brook University
 UST 401 ***Computer Applications for Urban Research***
 Undergraduate, Cleveland State University
 UST 403 ***Cartography & Graphics***
 Undergraduate, Cleveland State University
 UST 405 ***Methods of Research & Evaluation***
 Undergraduate, Cleveland State University
 UST 642 ***Introduction to GIS***
 Graduate, Cleveland State University
 UST 643 ***Advanced GIS***
 Graduate, Cleveland State University
 UST 644 ***GIS Capstone Seminar***
 Graduate, Cleveland State University
 UP 519 ***Advanced Applications of GIS***
 Graduate, University of Illinois at Urbana-Champaign

STUDENT ADVISING/MENTORING

PhD Exam (Part A) Committee:

Martin Smyth, Department of Technology and Society, Stony Brook University (Spring 2017)

Independent Research Advising:

Joseph Borromeo, GSS 587 Geospatial Research, Stony Brook University (Fall 2018)

Title: A Bird's eye map of hate crimes

Brian Pedersen, GSS 587 Geospatial Research, Stony Brook University (Fall 2017)

Title: Mapping the distribution water sampling network of Suffolk County

Cassandra Klewicki, GSS 587 Geospatial Research, Stony Brook University (Fall 2017)

Title: Poquott tree inventory GIS strategic plan

Phillip Maggio, GSS 587 Geospatial Research, Stony Brook University (Summer 2017)

Title: Advancements in land cover and NDVI mapping for ARM Southern great plains climate study

Ryan Wallace, GSS 587 Geospatial Research, Stony Brook University (Spring 2017)

Title: Spatial modeling to identify spatial refuges of larval shellfish populations from environmental stress in Great South Bay after 'Old Inlet' breach

Liam Trotta, GSS 587 Geospatial Research, Stony Brook University (Fall 2016)

Title: Finding a location for a sewer treatment plant for downtown Smithtown using geospatial analysis

Matthew Swain, GSS 587 Geospatial Research, Stony Brook University (Summer 2016)

Title: Long Island Geospatial Commons - implementing a geospatial data portal

Martin Smyth, GSS 587 Geospatial Research, Stony Brook University (Fall 2015)

Title: Geospatial analysis of regime violence during the Egyptian revolution of 2011

Maria Brown, GSS 587 Geospatial Research, Stony Brook University (Summer 2015)
Title: Promoting Geospatial Literacy in Secondary Education
Stacy Ineman, MAES and Taikun Cho, MUS, Cleveland State University (Spring 2011)
Derek Taylor, MUPDD, Ramon A. de Leon, MAES, and Vinola Vincent, PhD, Cleveland State University (Fall 2009)
Alice M. Jeresko, MAES, Cleveland State University (Spring 2008)

Undergraduate Fellow Advisor

Elizabeth Miller, *the 2010 Campbell-Steinbacher Undergraduate Fellow*, Levin College of Urban Affairs, Cleveland State University (Fall 2010 and Spring 2011)

Undergraduate Research Advisor

Raymond Flores, Marcelina Sladewska, and Stephen Lamoreaux, *Geo-narrating Cleveland using Google Earth*, CSU Undergraduate Research and Creative Achievement 2009 Award, Cleveland State University
Kacey Cummings and Raymond Flores, *A Web-based Exploratory Mapping Tool for the Rocky River Important Bird Area*, CSU Undergraduate Research and Creative Achievement 2010 Award, Cleveland State University

Dissertation Committee

YeonYeob Lee (2011), *The study on the dynamic decision-making patterns in supply chain process according to the degree of need for cognitive closure*, Ph.D. Dissertation, College of Business Administration, Cleveland State University
Hsin Chung Liao (2010), *Spatial accessibility to healthcare service and health outcome for people with disability*, Ph.D. Dissertation, College of Urban Affairs, Cleveland State University

AWARDS

Finalist of Individual Achievement in GIS, The NYS GIS Association 2017 Awards, 2017
AWS in Education Grant Award (\$1,200), Amazon Web Services, 2015
Pre-doctoral Fellowship, University of Illinois at Urbana-Champaign, 2005
Outstanding Ph.D. Student Award, Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign, 2005

PROFESSIONAL ASSOCIATIONS

Long Island GIS User Group
NYS GIS Association
Association of American Geographers

LICENSE OR CERTIFICATE

GISP (Certified GIS Professional), GIS Certification Institute, Certification Number #25487,
Expiration Date: 6/25/2019 (<http://www.gisci.org>).