

HYOWON HENNIE BAN
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California State University, Long Beach
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EDUCATION

Ph.D., Geography, August 2009. The Ohio State University, Columbus, OH
Dissertation Title: Visualization of Urban Concepts in Two Directions of Thinking
Advisor: Ola Ahlqvist, Department of Geography

Master of Arts, Geography, August 2001. Ewha Womans University, Seoul, Korea. Bachelor of Arts, Geography, February 1999. Ewha Womans University, Seoul, Korea.

RESEARCH INTERESTS

Geographic Information Science	Spatio-temporal analysis	semantic uncertainty
Geovisualization	Multidisciplinary research	Visual analytics

PUBLICATIONS

Journal Articles and Editorials (peer-reviewed)

Yoon, H., **Ban, H.**, & Hong-Dwyer, J. J. (2024). Geographic Research on Hate Crimes and Incidents: Approaches for Advancing Inclusive Practices. *International Journal of Geospatial and Environmental Research*, 11(1), Article 2. <https://dc.uwm.edu/ijger/vol11/iss1/2>

Ban, H. & Kim, H.-j. (2023). Analysis and Visualization of Vessels' Relative Motion (REMO). *ISPRS International Journal of Geo-Information*, 12(3), 115. <https://doi.org/10.3390/ijgi12030115>

Ban, H. & Ahlqvist, O. (2020). Geographical Counterpoint to Choreographic Information based on Approaches in GIScience and Visualization. *International Journal of Geospatial and Environmental Research*, 7(3), Article 4. <https://dc.uwm.edu/ijger/vol7/iss3/4>

Ban, H. & Sung, H. H. (2019). Visualization of Uncertain Boundaries of Undersea Features. *International Journal of Geospatial and Environmental Research*, 6(1), Article 4. <https://dc.uwm.edu/ijger/vol6/iss1/4>

Lee, S., Harrington, R. G., & **Ban, H.** (2016). Enhancing tolerance to a delayed reinforcer in a child with developmental disabilities: The comparison between non-signal and signaled delayed reinforcement procedures. *International Journal of Humanities and Social Science*, 6(8), 1-6. https://www.ijhssnet.com/journals/Vol_6_No_8_August_2016/1.pdf

Chavoshi, S. H., De Baets, B., Neutens, T., **Ban, H.**, Ahlqvist, O., De Tré, G., & Van de Weghe, N. (2014). Knowledge discovery in choreographic data using Relative Motion matrices and Dynamic Time Warping. *Applied Geography*, 47, 111-124. <https://doi.org/10.1016/j.apgeog.2013.12.007>

Kim, C., Sang, S., & **Ban, H.** (2014). Exploring job centers by accessibility using fuzzy set approach: the case study of the Columbus MSA. *GeoJournal*, 79(2), 209-222. <https://doi.org/10.1007/s10708-013-9501-2>

Ahlqvist, O. Harvey, F., **Ban, H.**, Chen, W., Fontanella, S., Guo, M., & Singh, N. (2013). Making journal articles 'live': turning academic writing into scientific dialog. *GeoJournal*, 78(1), 61-68. (editorial). <https://doi.org/10.1007/s10708-011-9431-9>

Ahlqvist, O., **Ban, H.**, Cressie, N., & Shaw, N. Z. (2010). Statistical counterpoint: Knowledge discovery of choreographic information using spatio-temporal analysis and visualization. *Applied Geography*, 30(4), 548-560. <https://doi.org/10.1016/j.apgeog.2010.03.006>

Ban, H. & Ahlqvist, O. (2010). User evaluation of a software interface for geovisualization and communication of uncertain urban ontologies. *Journal of Information Technology in Construction (ITcon)*, 15, 122-131. https://www.itcon.org/papers/2010_9.content.05495.pdf

Ban, H. & Ahlqvist, O. (2009). Representing and negotiating uncertain geospatial concepts - Where are the exurban areas?. *Computers, Environment and Urban Systems*, 33(4), 233-246. <https://doi.org/10.1016/j.compenvurbsys.2008.10.001>

Ahlqvist, O. & **Ban, H.** (2007). Categorical measurement semantics: A new second space for geography. *Geography Compass*, 1(3), 536-555. <https://doi.org/10.1111/j.1749-8198.2007.00026.x>

Sung, H.-H., Ryu, J., & **Ban, H.** (2002). A study on the geomorphological characteristics of environmental management in watershed. *Journal of the Korean Society for Geo- Spatial Information System*, 10(4), 17-30 (in Korean).

Book Chapters (peer-reviewed)

Wechsler, S. P., **Ban, H.**, & Li, L. (2019). The Pervasive Challenge of Uncertainty and its Integration in Geospatial Practice. In: Koutsopoulos, K., de Miguel González, R., & Donert, K. (Eds.), *Geospatial Challenges in the 21st Century. Key Challenges in Geography (EUROGEO Book Series)*. Springer, Cham. https://doi.org/10.1007/978-3-030-04750-4_16 ISBN: 978-3-030-04749-8.

Li, L., **Ban, H.**, Wechsler, S. P., & Xu, B. (2018). Spatial Data Uncertainty, In: Huang, B. (Ed.), *Comprehensive Geographic Information Systems*. Vol. 1, pp. 313–340. Oxford: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-409548-9.09610-X>

Project Reports (peer-reviewed)

Ban, H. (2022). Chapter 6-2: Monitoring and Making Requests of Corrections for Incorrect Marine Feature Names of South Korea on Foreign Atlases. In H.-H. Sung (Ed.), Final report for 2022 Strategic Promotion of the East Sea and Correspondence with International Hydrographic Organization, prepared for Korea Hydrographic and Oceanographic Agency. Republic of Korea: Ministry of Oceans and Fisheries.

Ban, H. (2021). Chapter 5-2: Improvement and Acknowledgement of Marine Feature Names except the East Sea. In H.-H. Sung (Ed.), Final report for 2021 Standardization of Marine Geographical Names and Promoting Awareness (227-237), prepared for Korea Hydrographic and Oceanographic Agency. Republic of Korea: Ministry of Oceans and Fisheries.

Ban, H. (2020). Chapter 7: Existing Databases for Global Coastal Feature Names. In H.-H. Sung (Ed.), Final report for 2020 Standardization of Marine Geographical Names and Promoting Awareness (157-180), prepared for Korea Hydrographic and Oceanographic Agency. Republic of Korea: Ministry of Oceans and Fisheries.

Ban, H. (2015). Chapter 5: Representing ocean-feature boundaries. In H.-H. Sung (Ed.), Final report for 2015 Investigation of Ocean Feature Names and the Informing (102- 112), prepared for Korea Hydrographic and Oceanographic Agency. Republic of Korea: Ministry of Oceans and Fisheries.

Ban, H. (2012). Chapter 6: A study to define spatial boundary of undersea features. In H.-H. Sung (Ed.), Final report for Investigation of Undersea-Feature Names Project (122- 132), prepared for Korea Hydrographic and Oceanographic Administration. Republic of Korea: Ministry of Land, Transportation And Maritime Affairs.

Papers in Conference Proceedings (peer-reviewed)

Ban, H. (2011). Geographical counterpoint of spatio-temporal data, the dance. In A. Ruas (Ed.), Proceedings of the 25th International Cartographic Conference (CO-211), Paris: International Cartographic Association, ISBN 978-1-907075-05-6.

Ban, H. & Ahlqvist, O. (2009). User evaluation of a software interface for communication in urban ontologies. In J. Teller, A.-F. Cutting-Decelle & R. Billen (Eds.), Urban Ontologies for an Improved Communication in Urban Development Projects (1-11). Belgium: Les Editions de l'Université de Liège, ISBN 978-2-87456-082-8.

Ban, H. & Ahlqvist, O. (2008). Web-based interactive visualization of uncertain concepts in urban ontologies. In J. Teller, C. Tweed & G. Rabino (Eds.), Conceptual Models for Urban Practitioners (57-68). Bologna: Società Editrice Esculapio, ISBN88-7488-208-4.

Ban, H. & Ahlqvist, O. (2007). Visualizing the uncertainty of urban ontology terms. Studies in Computational Intelligence: Ontologies for Urban Development, 61, 85-94.

Extended Abstracts in Conference Proceedings (peer-reviewed)

Chavoshi, H., De Baets, Neutens, **Ban, H.**, De Tré, G., & Van de Weghe, N. (2013). Analysis and visualization of movement: Application to dance. Extended abstract. Workshop on Analysis & Visualization of MOVEMENT: Focus on Tangible Results. COST IC0903 MOVE meeting, HafenCity University, Hamburg, Germany, March 4-5, 2013 (<http://users.ugent.be/~schavosh/MOVE.pdf>).

Ban, H. (2012). RELative MOTion (REMO) analysis of dance. Extended abstract. 7th International Conference on Geographic Information Science, Columbus, OH, U.S.A., September 18-21, 2012. http://www.giscience.org/proceedings/abstracts/giscience2012_paper_159.pdf

Palazzi, M., Shaw, N. Z., Forsythe, W., Lewis, M., Albright, B., Andereck, M., Bhatawadekar, S., **Ban, H.**, Calhoun, A., Drozd, J., Fry, J., Quintanilha, M., Reed, A., Schroeder, B., Skove, L., Thorndike, A., Twohig, M., Ahlqvist, O., Chan, P., Cressie, N., Turk, S., Johnson, J., Roman, C., Waterhouse, E., Haggard, P., & Noe, A. (2009). Synchronous Objects for One Flat Thing, reproduced. Extended abstract. SIGGRAPH '09 ACM SIGGRAPH 2009 Art Gallery, 37, ACM New York, NY, doi: 10.1145/1667265.1667306.

Ban, H. (2006). 3D visualization of the semantic uncertainty of exurban boundaries. Extended abstract. In M. Raubal, H.J. Miller, A.U. Frank, & M.F. Goodchild (Eds.), IFGIprints: Geographic Information Science, 28, 223-228. Germany: Institute for Geoinformatics, University of Münster.

Book Review (peer-reviewed)

Ban, H. (2012). The exposed city: Mapping the urban invisibles. Book review. *Emotion, Space and Society*, 5(4), 281-282.

Other Publications

Ban, H. (2024). AI and teaching/learning: What should we do with AI in higher education? KAGES Newsletter, 22(1), Fall 2024, pp.6-9, <https://indd.adobe.com/view/b8296e0b-0ceb-47f5-8d98-a52b0b24b900>

Ban, H. (2020). Uncertainty Problems and Census Data: The 2020 Census & Exurbanization Example. *Explore Your World*, blog, Department of Geography, The Ohio State University. <https://u.osu.edu/geographyblog/2020/12/02/uncertainty-problems-and-census-data-the-2020-census-exurbanization-example/>

Ban, H. (2011). User Guide for pinu (Program for Identification and Negotiation of Uncertain concept definitions). http://hyowonban.com/?page_id=9

Ban, H. & Brown, L. (2007). Lawrence Brown: Innovation Diffusion and Spatial Segregation in Multi-Race • *Ethnicity Society*, Gukto 2007, 1 (303), pp. 85-95, Korea Research Institute for Human Settlements (interview).

WORK IN PROGRESS

Yildiz, E., Yüksel, U., & **Ban, H.** Analysis and visualization of political maritime boundaries (in progress).

Ban, H. & Kang, J. Visualization of Uncertain and Dynamic Ocean Boundaries using GIScience and Virtual Environment (in progress).

Yoon, H., **Ban, H.**, Lee, S., & Kwon, K. Hate Studies and Anti-Asian Hate Crimes: In-depth Interviews and Digital Mapping (in progress).

POSITIONS

Professor, Department of Geography, California State University, Long Beach (Aug. 2021 – present), Long Beach, CA

Associate Professor, Department of Geography, California State University, Long Beach (Aug. 2015 – 2021), Long Beach, CA

Assistant Professor, Department of Geography, California State University, Long Beach (Aug. 2009 – 2015), Long Beach, CA

Graduate Teaching Associate, Department of Geography, The Ohio State University (Sep. 2006 – 2009), Columbus, OH

Graduate Research Associate, Center for Urban and Regional Analysis (CURA), The Ohio State University (Sep. 2005 – 2006), Columbus, OH

Instructor/Technical Support Engineer/Assistant Manager, ESRI Korea, Inc. (Aug. 2001 – 2004), Seoul, Korea

Graduate Research Associate, Department of Social Studies, Ewha Womans University (Aug. 1999 – 2001), Seoul, Korea

Graduate Teaching Associate, Department of Social Studies, Ewha Womans University (Aug. 2000 – 2001), Seoul, Korea

GIS Analyst/Programmer, Department of Social Studies, Ewha Womans University (Mar. 1996 – 1998), Seoul, Korea

COURSES TAUGHT

California State University, Long Beach

GEOG 280 Introduction to Geospatial Techniques, Spring 2013 – present. GEOG 380 Introduction to Digital Cartography, Fall 2009 – present.
GEOG 482/582 Advanced Digital Cartography & GIS, Fall 2009 – present.
GEOG 484/584 Advanced Concepts in Presentation Cartography, Spring 2010 – Spring 2015.
GEOG 485/585 Principles of Geographic Information Science, Fall 2023 – present.
GEOG 488/588 Advanced Topics in Geographic Information Science, Spring 2010 – Fall 2011.
GEOG 497 Directed Studies, Spring 2011 – present.
GEOG 600 Seminar in Geography: Representation of Geographic Concepts, Spring 2025.
GEOG 680 Seminar in Geospatial Science - GIScience and Geovisualization, Spring 2012, Spring 2013, Spring 2024.
GEOG 697 Directed Studies, Spring 2011 – present. GEOG 698 Thesis, Spring 2013 – present.
GISC 603 Cartographic Visualization, Fall 2013 – present. GISC 608 Applied Project, Summer 2014, Summer 2020, Summer 2025.

Master's Theses Advised

Breana Dyste (in progress). The impact of climate change on the geographic distribution of California's native bumblebees (draft). California State University, Long Beach (**thesis chair**).

Jaime DeVille (in progress). Vessel Presence and Traffic: The Price Paid by the North Atlantic Right Whale (draft). California State University, Long Beach (**thesis committee**).

Adam Russell (in progress). Estimation of the population size and density of wildlife species at River Ridge Ranch (draft). California State University, Long Beach (**thesis committee**).

John N. Adrian (in progress). The Geologic and Tectonic History of the Southwestern Periphery of Tharsis, Northeast Terra Sirenum to Icaria Planum, Mars. California State University, Long Beach (**thesis committee**).

Aida Cisneros (2025). Pollutant Discharge Facilities and Health of the Neighborhoods in Long Beach, CA (draft). California State University, Long Beach (**thesis committee**).

Dylan Charnon (2022). A Statistical Analysis on the U.S. Forest Service Nest Island Variables for Dusky Canada Geese (*Branta canadensis occidentalis*). California State University, Long Beach (**thesis committee**).

Tiana Fain (2022). The Art of Geography: A Visual Exploration of Site-Specific Art Installations in Southern California Desert Communities. California State University, Long Beach (**thesis committee**).

Kyle Garcia (2020). Functional Patterns: An Auto-Ethnography into the Spatialities of Training Intentionally, and not Habitually. California State University, Long Beach (**thesis chair**).

Laurel Golden (2020). Yosemite Soundscape: An Assessment of Anthropogenic Noise in Tuolumne Meadows. California State University, Long Beach (**thesis committee**).

Eddie Bairam (2017). The Origins and Spatial Diffusion of Female Professional Soccer Players in the United States 1991-2015: Geographical, cultural and social perspectives. California State University, Long Beach **(thesis committee)**.

Brent Dell (2016). Geovisualizing Emotional Response to Policy: A Study of the Patient Protection and Affordable Care Act. California State University, Long Beach **(thesis committee)**.

Molan Choi (2015). Assessing the Effect on Streamflow of Two Snow Dominated Watersheds in Sierra Nevada, California using Hydrologic Modeling in GIS. California State University, Long Beach **(thesis chair)**.

Stephen Strand (2015). Motorsport Performance Analysis: A Spatio-Temporal Approach. California State University, Long Beach **(thesis chair)**.

Scott Winslow (2014). Putting Bodie in its place: a thematic gazetteer of a California ghost town. California State University, Long Beach **(thesis chair)**.

Daniel Jensen (2014). Spatial analysis and visualization in the NBA using GIS applications. California State University, Long Beach **(thesis chair)**.

Jeannine Hogg (2014). An assessment of social vulnerability in Yuba County. California State University, Long Beach **(thesis committee)**.

Jose Robles (2014). The association between land cover and West Nile Virus avian infections within three ecologically distinct urbanized regions of Orange County, California. California State University, Long Beach **(thesis committee)**.

Kevin Flaherty (2014). Assessing public use of spatial data in Long Beach, CA. California State University, Long Beach **(thesis committee)**.

Ian R. Boles (2012). Parkways as found paradise: a GIS analysis of the form and accessibility of green spaces in Orange County, California. California State University, Long Beach **(thesis committee)**.

Andreea Greavu (2012). Geovisualizing the emotional geographies of marathon runners: a case study of the Long Beach Marathon 2010. California State University, Long Beach **(thesis committee)**.

Sheridan Wright Kennedy (2011). The 1878 yellow fever epidemic in Memphis, Tennessee: an historical geographic information systems (HGIS) approach. California State University, Long Beach **(thesis committee)**.

Cohorts of the Master of Science in Geographic Information Science (MSGISci) Program, CSULB (2013 – present) **(thesis committee)**.

GRANTS AND AWARDS

External Grants

Awarded

Co-PI: Strategic Promotion of East Sea and Correspondence with IHO. (April 2022~November 2022). With Dr. Yoonsoo Choi (PI), Eunmi Jang (Co-PI), Jaemyung Kim (Co-PI), Jungmin Lee (Co-PI), Hyunchul Han (Co-PI), Hyo Hyun Sung (Co-PI), Younghoon Kim (Co-PI), Sanghee Chun (Co-PI), Khyungchul Park (Co-PI), Wonjong Lee (Co-PI), Seulki Lee (Co-PI), Eunjin Han (Co-PI), Chanho Kim (Co-PI), Sangmin Lee (Co-PI), Heewon Yang (Co-PI). Funded by The Korea Hydrographic and Oceanographic Agency, South Korea (approximately \$244,460).

Co-PI: 2021 Standardization of Marine Geographical Names and Promoting Awareness. (March 2021~November 2021). With Dr. Hyo Hyun Sung (PI), Jungmin Lee (Co-PI), Soochul Park (Co-PI), Ahyoung Kim (Co-PI), Hyun Namgoong (Co-PI), Jisoo Kim (Co-PI), Okgyung Yoon (Co-PI), Eunmi Jang (Co-PI), Gunhak Lee (Co-PI), Moonbo Sim (Co-PI), Hoyoon Kang (Co-PI), and Hyunwook Lee (Co-PI). Funded by The Korea Hydrographic and Oceanographic Agency, South Korea (approximately \$191,600).

Co-PI: 2020 Standardization of Marine Geographical Names and Promoting Awareness. (April 2020~November 2020). With Dr. Hyo Hyun Sung (PI), Okgyung Yoon (Co-PI), Hyunwook Lee (Co-PI), and Heechul Yang (Co-PI). Funded by The Korea Hydrographic and Oceanographic Agency, South Korea (approximately \$233,222).

Co-PI: 2015 Investigation and Promotion of Marine Geographical Names. (April 2015~December 2015). With Drs. Hyo Hyun Sung (PI), Okgyung Yoon (Co-PI), Hyunwook Lee (Co-PI), Kiseok Lee (Co-PI), Hyunchul Han (Co-PI), and Eunmi Jang (Co-PI). Funded by The Korea Hydrographic and Oceanographic Administration, South Korea (approximately \$236,800).

Co-PI: 2012 Investigation of Undersea Feature Names. (April 2012~October 2012). With Drs. Hyo Hyun Sung (PI), Eunmi Jang (Co-PI), Dongsoo Kim (Co-PI), Kiseok Lee (Co-PI), Sangtae Lee (Co-PI), Hyunchul Han, Sucheol Park, and Okgyung Yoon (Co-PI). Funded by The Ministry of Land, Transport and Maritime Affairs, South Korea (approximately \$264,000).

Not Awarded

Co-PI: Unpacking emotional geography of female Asian/Asian American students' experiences during COVID-19 in two American cities, Milwaukee, WI and Long Beach, CA: Visualization of qualitative spatial-temporal data using mixed methods. With Hyejin Yoon (PI) and Jessie Hong (Co-PI). University of Wisconsin-Milwaukee Discovery and Innovation Grant, October 2022 (\$79,173).

Co-PI: Exploring anti-Asian incidents in the urban Areas: Mapping Asian female students' emotions using a qualitative spatio-temporal approach (2022). With Drs. Hyejin Yoon (PI) and

Jung Eun Hong (consultant). Funding by the Urban Studies Foundation, United Kingdom, Pandemics and Cities research grant, (\$31,944).

Co-PI: Exploring anti-Asian incidents in the urban area: Mapping Asian female students' emotions using a qualitative spatio-temporal approach (2022). With Drs. Hyejin Yoon (PI) and Jung Eun Hong (consultant). Funding by the University of Wisconsin- Milwaukee Advancing Research and Creativity (ARC) Grant, (\$14,943).

Co-PI: Bridging the Gap in STEM Education in Diverse Urban PreK-8 Schools (2021). With Drs. Shuhua An (PI), Jyotsna Pattnaik (Co-PI), Linna Li (Co-PI), Fay Shin (Co-PI), Kevin Valenzuela (Co-PI), Mehrdad Aliasgari (Co-PI), and Oscar Morales Ponce (Co-PI). Funding by the National Science Foundation (\$1,592,034).

Co-PI: Engaging Children & Teachers in Innovative STREM Experience in Diverse Urban Classroom (2021). With Drs. Fay Shin (PI), Linna Li (Co-PI), Jyotsna Pattnaik (Co-PI), Mehrdad Aliasgari (Co-PI), Shuhua An (Co-PI), and Oscar Morales Ponce (Co-PI). Funding by the US Department of Education - The Institute of Education Sciences (\$1,745,894).

Co-PI: Integrating CT and DM into Math Instruction to Support PreK-8 Students' Learning in Diverse Urban Classrooms. (2020). With Drs. Shuhua An (PI), Linna Li (Co-PI), Jyotsna Pattnaik (Co-PI), and Mehrdad Aliasgari (Co-PI). Funding by the National Science Foundation (\$300,000).

PI: Development of Calliope Mobile Application: Representing More Intuitive Geographic Information System (GIS) Data to Public. (2020). Funding by High Potential Individuals Global Training Program, Institute of Information & Communications Technology Planning & Evaluation, Ministry of Science and Information & Communication Technology (MSIT), South Korea (\$75,000).

Co-PI: Integrating STEM+C into Math Instruction to Support Diverse K-5 Children's Learning. (2017). With Drs. Shuhua An (PI), Burkhard Englert (Co-PI), Linna Li (Co-PI), and Zhonghe Wu (Co-PI). Funding by the National Science Foundation (\$1,248,466).

Co-PI: Publication (1970>). (2016). With Christina Newhouse (PI) and Michael Shensky (Co-PI). Funds by The National Endowment for the Humanities (\$30,000).

Internal Grants

Awarded

PI: Mapping Emotions of Female Asian/Asian American (AAA) Experiences in the West, South Central, and Midwest Regions in the U.S.: Using Mixed-Methods Approach (2024). Proposal for the Inaugural Social Science Research & Instructional Council (SSRIC) of the California State University (CSU) Faculty Seed Grant Program. Funding by the CSU Chancellor's Office (\$2,300).

Co-PI: Improving STEM Education by Integrating Geospatial Technologies into K-8 Mathematics Curriculum (2020). Proposal for 2020-2021 Office of Research and Sponsored Programs (ORSP) Multidisciplinary Research Grants. With Drs. Linna Li (PI), Shuhua An (Co-PI), and Jyotsna Pattnaik (Co-PI). Funding by ORSP (\$15,000).

Co-PI: Proposal for Professional Science Masters in Geographic Information Science (PSM MGSci) Program. (2011). With Drs. Suzanne Wechsler (PI), Christopher Lee (Co-PI), Jacqueline Mills (Co-PI), and Christine Rodrigue (Co-PI). Funded by CSU Commission of the Extended University (\$50,000).

Faculty Release Time granted for Spring 2011: Preparation and Enhancement of PSM MGSci Program. Funded by The College of Continuing and Professional Education, CSULB.

Not Awarded

PI: Proposal for 2019-2020 Office of Research and Sponsored Programs (ORSP) Multidisciplinary Research Grants (not awarded, 2019). Disrupting Traffick: A Randomized, Controlled Trial of Preventions to Human Trafficking and Contemporary Slavery in Rural Villages in India and Nepal. With Drs. Kimberly Walters (PI) and Barbara Grossman-Thompson (PI). Funding by ORSP (\$14,000).

Faculty Research Mentor (not awarded, 2019). 2019-20 Summer Student Research Assistantships Program, Mentee: Alejandro Beltran Cortez, Undergraduate student in Geography. Academic Affairs & Office of Research and Sponsored Programs (ORSP), CSULB.

PI: Proposal for 2013 CSULB Multidisciplinary Research Award (not awarded, 2013). "Walking the high Ridge": New Representations of the Urban Environment. With Prof. Sunook Park (Co-PI). Funding by Office of Research & Sponsored Programs (ORSP), CSULB (\$100,000).

Awards

2026-2027 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Analysis and visualization of political maritime boundaries. Granted for the Fall 2026 semester by the College of Liberal Arts, California State University, Long Beach.

2025-2026 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Mapping Emotions of Asian/Asian American Experiences in the West, South Central, and Midwest Regions in the U.S.: Using Mixed-Methods Approach. Granted for the Fall 2025 semester by the College of Liberal Arts, California State University, Long Beach.

Certificate of Appreciation, Center for Community Engagement, CSULB, April 22, 2025.

2024-2025 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Spatial Analysis and Visualization of Urban Sustainability - Where are the Exurban Areas in Greater Los Angeles? Granted for the Fall 2024 semester by the College of Liberal Arts, California State University, Long Beach.

2023-2024 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Unpacking emotional geography of female Asian/Asian American students' experiences during COVID-19 in two American cities, Long Beach, CA, and Milwaukee, WI. Granted for the Spring 2024 semester by the College of Liberal Arts, California State University, Long Beach.

2022-2023 Sabbatical Leave Award, Analysis & Visualization of Spatio-Temporal Information using GIScience: Focusing on Marine Features and Urban Emotions. Granted for the Fall 2022 semester by California State University, Long Beach.

2022-2023 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Exploring anti-Asian incidents in the urban areas: Mapping Asian female students' emotions using qualitative and spatio-temporal approaches. Granted for the Spring 2023 semester by the College of Liberal Arts, California State University, Long Beach.

2022-Spring CSULB Research, Scholarship, and Creative Activity - Higher Education Emergency Relief Fund (RSCA-HEERF) Awards for Reassigned Time, Visualization of Uncertain Ocean Feature Boundaries using GIScience and Virtual Reality. Granted for the Spring 2022 semester by the College of Liberal Arts, California State University, Long Beach.

2021-2022 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Improving STEM Education by Integrating Geographic Information Science and Digital Cartography into K-8 Mathematics Curriculum. Granted for the Fall 2021 semester by the College of Liberal Arts, California State University, Long Beach.

2021 Outstanding Community Service Award, Korea-America Association for Geospatial and Environmental Sciences.

2020-2021 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Visualization of Uncertain Ocean Feature Boundaries using GIScience and Virtual Reality. Granted for the Fall 2020 semester by the College of Liberal Arts, California State University, Long Beach.

2019-2020 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Development of Calliope Mobile Application: Representing Geography in Design and Music by using Technologies. Granted for the Fall 2019 semester by the College of Liberal Arts, California State University, Long Beach.

2017-2018 Ethics Across the Curriculum Stipend Recipients Award. Ethics in Digital Cartography using Big Data and GIScience. Granted for Summer 2017 by the Ukleja Center for Ethical Leadership, CSULB.

2017-2018 The Most Outrageous Thesis Advisor Award, Department of Geography, CSULB.

2017-2018 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Analysis and Visualization of Vessels' Relative Motion. Granted for the Fall 2017 semester by the College of Liberal Arts, California State University, Long Beach.

2016-2017 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Representing the Uncertainty of Ocean-Feature Boundaries. Granted for the Fall 2016 semester by the College of Liberal Arts, CSULB.

2015-2016 CSULB Research, Scholarship, and Creative Activity (RSCA) Awards for Reassigned Time, Geographical Counterpoint of Dance using Geographic Information Science. Granted for the Spring 2016 semester by the College of Liberal Arts, California State University, Long Beach.

2015-2016 Sabbatical Leave Award, Dancing on the Floor of Geographic Information Science. Granted for the Fall 2015 semester by California State University, Long Beach.

UCGIS / ESRI Junior Scholar Award, University Consortium for Geographic Information Science (UCGIS) Summer Assembly, UCGIS, 2010.

Communication Arts 2010 Interactive Annual Award (Information Design category: Synchronous Objects), Communication Arts, 2010.

Second Place Prize, Cyberinfrastructure Specialty Group Student Honors Paper Competition, The Association of American Geographers, 2009.

Pixoneer Scholarship Awards, 1st Pixoneer Scholarship Awards, KAGES Meeting and Conference, Korean-American Association for Geospatial and Environmental Sciences (KAGES), 2009.

Second Place Prize, Cartography Specialty Group Student Honors Paper Competition, The Association of American Geographers, 2008.

Travel Grants

Awarded

College of Liberal Arts Travel Award, CSULB, 2009~2025

Travel Grant, The US National Committee (USNC) of the International Cartographic Association (ICA) for the 25th International Cartographic Conference, The Cartography and Geographic Information Society (CaGIS), 2011.

Travel Grant, 2010 UCGIS Summer Assembly, 2010.

EPI PhD Dissertation Proposal Summer Research Grants, The Environmental Policy Initiative (EPI), The Ohio State University, 2007.

Full Travel Grant, The COST C21 Conference, European Cooperation in the Field of Scientific and Technical Research (COST) Office, European Science Foundation, 2009.

Full Travel Grant, 2nd COST C21 Workshop, COST Office, European Science Foundation, 2007.

Full Travel Grant, 1st COST C21 Workshop, COST Office, European Science Foundation, 2006.

INVITED LECTURES AND TALKS

Ban, H. (2025). Analysis and Visualization of Multiple Types of Spatio-Temporal Data: Focusing on Dance, Music, and Marine Transportation. Korean Women in Science and Engineering (KWise) Southern California Annual Conference, October 18, 2025, California State University, Los Angeles.

Ban, H. & Sim, S. (2025). Analysis and visualization of exurbanization using Esri GeoAI, Google Earth Engine, and satellite imagery. Research Seminar, HancornInSpace, January 6, 2025, Daejeon, South Korea.

Ban, H. (2025). Considerations for recent multidisciplinary research in GIScience with case studies and the use of AI in research: with case studies. Department of Social Studies Education, Ewha Womans University, January 3, 2025, Seoul, Korea.

Yoon, H., **Ban, H.**, & Lee, S. (2024). Panelist, Asia in Conversation: Navigating Asian/Asian-American Identity in the Midwest, Southwest, and West: Flourishing in Unfamiliar Terrain. Sponsored by the UWM Division of Diversity, Equity, and Inclusion, and the William F. Vilas Trust, March 15, On ZOOM, Open to the Public.

Ban, H. (2024). Analysis and visualization of spatio-temporal information based on GIS: movements of vessels and humans. Korea Research Institute of Ships and Ocean Engineering, January 18, 2024, Daejeon, South Korea.

Ban, H. (2024). Current academic practice of GIScience in the US: focusing on platforms, open source, and GeoAI. Technical Seminar Series, Shinhan Aerial Survey, January 17, 2024, Seoul, Korea.

Ban, H. (2024). Recent Examples of Geographic Information Science and Visualization Research. Graduate Seminar, Department of Geography Education, Dongguk University, January 16, 2024, Seoul, Korea.

Ban, H. (2023). Learning Metaverse in Geography Classrooms. The Metaverse Convening, CSULB, March 10, 2023, Long Beach, CA.

Ban, H. (2022). Anti-Asian Hate Crimes in the U.S. Colloquium Series, Graduate School of Environmental Studies, Seoul National University, November 29, 2022, Seoul, Korea.

Ban, H. (2022). Current Technologies in GIScience. Technical Seminar Series, Sundo Soft, Inc., November 29, 2022, Seoul, Korea.

Ban, H. (2022). Analysis and Visualization of Spatio-Temporal Information. Technical Seminar Series, Shinhan Aerial Survey, November 10, 2022, Seoul, Korea.

Ban, H. (2022). Learned Optimism from Geospatial Research. Guest lecture at the Department of Psychology and Counseling, University of Central Arkansas, October 25, 2022, Conway, Arkansas.

Ban, H. (2021). Korean Communities in Los Angeles County, CA - From Geographic Perspectives, 44th Korean Cultural Experience for LAPD Officers, September 16, 2021, Korean Cultural Center, Los Angeles.

Li, L. & **Ban, H.** (2020). Census Data 101B, UROP Census Seminar, Undergraduate Research Opportunity Program (UROP), CSULB, Monday, February 10, 2020.

Ban, H. (2019). Representing GIS data. SundoSoft, Inc., May 22, 2019, Seoul, South Korea.

Ban, H. (2019). "STEM and Leaf Plot: where should I plant my tree?". The National Math and Science Competition. The Shanahan Center auditorium, Harvey Mudd College, April 13, 2019, Claremont, California.

Ban, H. (2016). Research project examples for study of vessels' movements. Korea Research Institute of Ships and Ocean Engineering, July 28, 2016, Daejeon, South Korea.

Ban, H. (2016). RELative MOTion (REMO) Analysis and Visualization of Vessels Movements. Korea Research Institute of Ships and Ocean Engineering (KRISO), July 25, 2016, Daejeon, South Korea.

Ban, H. (2015). Movement pattern analysis of dance using QTC and GIScience, Guest lecturer for a graduate seminar course of Dr. Nico van de Weghe, Department of Geography, Ghent University, November 26, 2015, Ghent, Belgium.

Ban, H. (2015). Natural disasters in the U.S. and California. Faculty-led Overseas Study Program of Ewha Womans University, Seoul, Korea, CSULB, January 14, 2015.

Ban, H. (2014). Introduction to Geography of South Korea. Guest Lecture for Dr. Farhana Siddiqi's course, CBA 300 – International Business, CSULB, November 24, 2014.

Ban, H. (2014). Introduction to GIS for fine art students: how to utilize GIS for creation of art work? The Workshop, Associated Students, Inc., CSULB, October 24-25, 2014.

Ban, H. and Park, S. (2014). Introduction to the Calliope Project. September 11, 2014, Office of The President, CSULB.

Ban, H. (2012). Geospatial counterpoint of dance. The Colloquium Series, Department of Geography, CSULB. September 14, 2012.

Ban, H. (2011). Recent Trends and Future Prospective of GIS Research in Geography Discipline. Department of Social Studies, Ewha Womans University, June 1, 2011, Seoul, Korea.

Ban, H. (2011). Visualization of Spatio-Temporal Information Represented as Art. Department of Social Studies, Ewha Womans University, June 8, 2011, Seoul, Korea.

Ban, H. (2011). Visualization of Uncertain Urban Spatial Concept. Department of Geo-Informatics, University of Seoul, June 14, 2011, Seoul, Korea.

Ban, H. (2009). Development and User Evaluation of a Software Interface for Geovisualization and Communication of Uncertain Urban Ontologies. The Colloquium Series, Department of Geography, CSULB. November 13, 2009.

PRESENTATIONS

Ban, H. and Yoon, H. (2025). COVID-19 and Anti-Asian & Asian-American Incidents: Mapping of In-depth Interviews. Association of Pacific Coast Geographers (APCG) Conference, October 9-11, 2025, Santa Clarita, CA.

Ban, H. and Yoon, H. (2024). COVID-19 and Anti-Asian & Asian-American Incidents: Literature Study and Sample In-depth Interviews. Annual Meeting of The American Association of Geographers, April 16-20, 2024, Honolulu, Hawaii.

Ban, H. (2024). Analysis and visualization of spatio-temporal information based on GIS: movements of vessels and humans. Korea Research Institute of Ships and Ocean Engineering, January 18, 2024, Daejeon, South Korea.

Ban, H. (2024). Current academic practice of GIScience in the US: focusing on platforms, open source, and GeoAI. Technical Seminar Series, Shinhan Aerial Survey, January 17, 2024, Seoul, Korea.

Ban, H. (2024). Recent Examples of Geographic Information Science and Visualization Research. Graduate Seminar, Department of Geography Education, Dongguk University, January 16, 2024, Seoul, Korea.

Ban, H. (2023). Practice of Geography Research and Teaching in the Metaverse. Geography Colloquium Series, April 24, 2023, Department of Geography, CSULB.

Ban, H. (2023). Integrating Digital Mapping in K-12 STEM Education: User Interviews. Annual Meeting of The American Association of Geographers, March 23-March 27, 2023, Denver, Colorado.

Ban, H., Yoon, H., & Hong-Dwyer, J. (2022). Literature study of anti-Asian hate incidents: the space of fear and discrimination, and the methodologies – case studies in the U.S. Annual Winter Conference of the Korean Urban Geographical Society, December 10, 2022, Seoul, Korea.

Ban, H. (2022). Geographical and statistical analysis and visualization of choreographic information. Annual Fall Conference of the Korean Cartographic Association, December 3, 2022, Seoul, Korea.

Yoon, H., Hong, J. E., **Ban, H.** (2022), Anti-Asian Hate Crimes 1: Space of fear and discrimination. Annual Meeting of The American Association of Geographers, Virtual, February 25-March 1, 2022, New York, New York.

Ban, H. (2022). Integrating Digital Mapping in K-12 STEM Education. Annual Meeting of The American Association of Geographers, Virtual, February 25-March 1, 2022, New York, New York.

Li, L. & **Ban, H.** (2022). Session organizer and Chair: Integration of Geospatial Technologies into K-12 Education. Geography Education Specialty Group, Careers and Professional Development, virtual paper session, February 25, 2022. Annual Meeting of The American Association of Geographers, Virtual, February 25-March 1, 2022, New York, New York.

Ban, H. (2021). Geographical Counterpoint to Choreographic Information based on Approaches in GIScience and Visualization. Annual Meeting of The American Association of Geographers, Virtual, April 7-April 11, 2021, Seattle, Washington.

Ban, H. (2020). Movement Analysis and Visualization of Choreographic Information. 115th Annual Meeting of The American Association of Geographers, April 6-April 10, 2020, Denver, Colorado. The Conference was canceled due to COVID-19.

Ban, H. (2019). Semantic Uncertainty of Undersea Features. Geography Colloquium Series, November 21, 2019, Department of Geography, CSULB.

Ban, H. & Kim, H.-J. (2018). Development and user evaluation of a system for marine traffic control. Spatiotemporal Symposium- Spatiotemporal visualization: concepts, tools, platforms and related topics, 113rd Annual Meeting of The American Association of Geographers, April 9-April 14, 2018, New Orleans, Louisiana.

Ban, H. & Sung, H. H. (2017). Uncertainty of Undersea-Feature Boundaries. Annual Meeting of The Korean Geographical Society, June 23rd, 2017, Gwangju, Korea.

Ban, H. & Kim, H.-J. (2017). Relative MOTion (REMO) Analysis and Visualization of Vessels Movements. 112nd Annual Meeting of The American Association of Geographers, April 5-April 9, 2017, Boston, Massachusetts.

Ban, H. (2016). Motion Analysis of Dance using Qualitative Trajectory Calculus and Geographic Information Science. US-Korea Conference (UKC) 2016, August 10-13, 2016, Dallas, Texas.

Ban, H. (2016). Representing uncertain boundaries of ocean features. 111th Annual Meeting of The American Association of Geographers, March 29-April 2, 2016, San Francisco, California.

Ban, H. (2016). Panelist. Other cartographies, other geographies, other voices. 111th Annual Meeting of The Association of American Geographers, March 29-April 2, 2016, San Francisco, California.

Sung, H. and **Ban, H.** (2015). Defining Boundaries of Ocean Features using GIS. 2015 International Geographical Union (IGU), August 17-21, 2015, Moscow, Russia.

Ban, H. (2015). Representation of Spatial Information in Geographic Information Science. 2015 KWise West Coast Annual Conference, May 16, 2015, Pasadena, California. (invited).

Ban, H. (2015). Geographical Information Converted into Graphic Design and Music. 110th Annual Meeting of The Association of American Geographers, April 21-25, 2015, Chicago, Illinois.

Ban, H. (2014). A Calliope Collaboration. General meeting of the California Map Society, November 15, 2014, Long Beach, California. (invited).

Ban, H. (2014). Representing Areal Extents of Uncertain Undersea Features. 109th Annual Meeting of The Association of American Geographers, April 8-12, 2014, Tampa, Florida.

Ban, H., Chavoshi, S.H., and Van de Weghe, N. (2013). Motion analyses and visualization of dances. 108th Annual Meeting of The Association of American Geographers, April 9-13, 2013, Los Angeles, California.

Chavoshi, S.H., De Baets, Neutens, **Ban, H.**, De Tre, G., and Van de Weghe, N. (2013). Analysis and Visualization of Movement: Application to Dance. Workshop on Analysis & Visualization of MOVEMENT: Focus on Tangible Results. COST IC0903 MOVE meeting, HafenCity University, March 4-5, 2013, Hamburg, Germany.

Ban, H. (2013). Representation of spatio-temporal information. Third Annual Los Angeles Geospatial Summit, Opening Plenary Speaker, The Japanese American National Museum, February 8, 2013, Los Angeles, California, (invited).

Ban, H. (2012). RELative MOTion (REMO) analysis of dance. 7th International Conference on Geographic Information Science, September 18-21, 2012, Columbus, Ohio.

Sung, H.H. and **Ban, H.** (2012). Semantic uncertainty of concepts in generic name of undersea features. 32nd International Geographical Congress (IGC) Cologne, August 26-30, 2012, Cologne, Germany.

Ban, H. (2012). Knowledge discovery of choreographic information by statistical counterpoint. 107th Annual Meeting of The Association of American Geographers, February 24-28, 2012, New York, New York.

Ban, H. (2011). Geographical Counterpoint of Spatio-Temporal Data, the Dance. 25th International Cartographic Conference, July 3-8, 2011, Paris, France, (invited).

Ban, H. and Ahlqvist, O. (2011). Geographical Counterpoint: Understanding Choreographic Information Using Spatio-Temporal Analysis and Geovisualization. 107th Annual Meeting of The Association of American Geographers, April 12-16, 2011, Seattle, Washington.

Ban, H. and Ahlqvist, O. (2010). Representing and negotiating uncertain geospatial concepts. 2010 UCGIS Summer Assembly, June 15-16, 2010, Hilton Head Island, South Carolina.

Ban, H. and Ahlqvist, O. (2010). Multi-group user evaluation of interactive geovisualization tool for communication of uncertain urban ontologies. 106th Annual Meeting of The Association of American Geographers, April 14-18, 2010, Washington, D.C.

Ban, H. (2009). Art and Science Together Again: What Do Geography and Choreography Tell Each Other?. 105th Annual Meeting of The Association of American Geographers, March 22-27, 2009, Las Vegas, Nevada.

Ban, H. and Ahlqvist, O. (2009). Representing and Negotiating Uncertain Exurban Concepts with User Evaluation. 105th Annual Meeting of The Association of American Geographers, March 22-27, 2009, Las Vegas, Nevada.

Ban, H. and Ahlqvist, O. (2009, presented by Ahlqvist, O.). User Evaluation of a Software Interface for Communication in Urban Ontologies. COST Action C21 Conference, "Ontologies for urban development: Future development of urban ontologies", March 9-10, 2009, Université de Liège, Liège, Belgium, (invited).

Ban, H. (2008). Web-based Interactive Visualization of Different Definitions of Exurban Areas. 104th Annual Meeting of The Association of American Geographers, April 15- 19, 2008, Boston, Massachusetts.

Ban, H. and Ahlqvist, O. (2007). Web-based Interactive Visualization of Uncertain Concepts in Urban Ontologies. 2nd Workshop of COST Action C21. "Urban Ontologies for an improved communication in urban civil engineering projects", October 17-18, 2007, Castello del Valentino, Torino, Italy, (invited).

Ban, H. (2007). Visualizing Difference and Similarity between Definitions of Exurban Areas. 103rd Annual Meeting of The Association of American Geographers, April 16-21, 2007, San Francisco, California.

Ban, H. and Ahlqvist, O. (2006). Visualizing the Uncertainty of Urban Ontology Terms. 1st Workshop of COST Action C21. "Ontologies for Urban Development: Interfacing Urban Information Systems", November 6-7, 2006, University of Geneva, Geneva, Switzerland, (invited).

Ban, H. (2006). 3D Visualization of the Semantic Uncertainty of Exurban Boundaries. Geographic Information Science: 4th International Conference, GIScience 2006, September 20-23, 2006, Münster, Germany, (invited).

Ban, H. (2006). Visualizing Different Definitions of Exurban Areas. 102nd Annual Meeting of The Association of American Geographers, March 7-11, 2006, Chicago, Illinois.

Ban, H. (2005). A Study on the Geomorphological Characteristics of Development and Flood Hazards in Watershed using Geographic Information System: Northwest region in Yongin city, Republic of Korea. 101th Annual Meeting of The Association of American Geographers, April 5-9, 2005, Denver, Colorado.

PROFESSIONAL MEETINGS

Observer, LARIAC 8 Kick-off and User Group Meeting at CSU Long Beach, Los Angeles Region Imagery Acquisition Consortium. January 28, 2026, Long Beach, CA.

Project meetings with Captain Kipling Louttit, Executive Director, Marine Exchange of Southern California & Vessel Traffic Service Los Angeles Long Beach, and Drs. Hye Jin Kim and Jaeyong Oh, Korea Research Institute of Ships & Ocean Engineering (KRISO). May 23, 2025, and Oct 24, 2025, San Pedro, CA.

Project meeting with Captain John Dwyer, Chief Port Pilot, LA Pilot Service, Port of LA, and Drs. Hye Jin Kim and Jaeyong Oh, Korea Research Institute of Ships & Ocean Engineering (KRISO). July 2, 2025, San Pedro, CA.

CAHSSA Collaborative Proposal Writing Retreat, UCLA Lake Arrowhead Conference Center, April 7-10, 2024.

Workshop, Golden Compass 2022, Hosted by Jieun Lee, Laxmi Ramasubramanian, Huyen Le, and Monica Haddad. May 21 – 23, 2022, Denver, Colorado.

Project meeting with Dr. Hye-Jin Kim, Korea Research Institute of Ships & Ocean Engineering (KRISO), Seoul National University, Seoul, Korea, December 1, 2022.

Project meeting, Final report meeting of the 2021 Standardization of Marine Geographical Names and Promoting Awareness project, The Korea Hydrographic and Oceanographic Agency, Virtual, November 23, 2021, South Korea (virtual participation).

Project meeting, Semi-final report meeting of the 2021 Standardization of Marine Geographical Names and Promoting Awareness project, The Korea Hydrographic and Oceanographic Agency, August 17, 2021, Busan, South Korea (virtual participation).

Project meeting, Final report meeting of the 2020 Standardization of Coastal Feature Names and its Informing project, The Korea Hydrographic and Oceanographic Agency, November 24, 2020, Busan, South Korea (virtual participation).

Project meeting, Development of an automatic control system of vessels. Korea Research Institute of Ships and Ocean Engineering (KRISO), August 31, 2020, Daejeon, South Korea (virtual participation).

Project meeting, Semi-final report meeting of the 2020 Standardization of Coastal Feature Names and its Informing project, The Korea Hydrographic and Oceanographic Agency, August 23, 2020, Busan, South Korea (virtual participation).

Project meeting, RELative MOTion (REMO) Analysis and Visualization of Vessels Movements. With Kim, H.-J. at KRISO, July 7th, 2017. Seoul, Korea.

Project meeting, Development of Vessels Movements System. July 26, 2016, Ewha Womans University, Seoul, Korea.

Project meeting, REMO Analysis, and 3D geovisualization of Samba dance. January 7, 2013, Department of Geography, Ghent University, Ghent, Belgium.

Project meeting, Analysis and visualization of dance with music. January 8, 2013, Institute for Psychoacoustics and Electronic Music (IPEM), Ghent University, Ghent, Belgium.

EXHIBITIONS OR SHOWS

Booth Exhibition of MSGISci Program at CSULB, Annual ESRI User Conference (2010 - 2019), San Diego Convention Center, San Diego, California.

Calliope: Graphic Design + Geography Collaborative Project. Advisor of the project team. Brand Workshop Presentation Spring 2013, May 13, 2013, Building HSCI, Room 103, California State University, Long Beach.

Synchronous Objects, Reproduced. Participant of the project team. 2010 International Symposium on Electronic Art (ISEA2010 RUHR), August 20–29, 2010, Dortmund, Essen and Duisburg, Germany.

Synchronous Objects for One Flat Thing, reproduced. Participant of the project team. The 36th International Conference and Exhibition on Computer Graphics and Interactive Techniques (SIGGRAPH'09): The Information Aesthetics Showcase Exhibition, August 4-6, 2009, Ernest N. Morial Convention Center, New Orleans, Louisiana.

Charles Helm/Wexner Center for the Arts. Object designer. William Forsythe: Transfigurations. Sponsored by: National Endowment for the Arts, New England Foundation for the Arts, Battelle Endowment for Technology and Human Affairs, Wexner Center for the Arts, Columbus, Ohio. April 02, 2009 - July 26, 2009. wexarts.org.

William Forsythe Symposium: Choreographic Objects. Panel and participant of the project team. April 1, 2009, Wexner Center for the Arts.

MULTIMEDIA, DATABASES, AND WEBSITES

Ban, H. (2009). pinu (program for identification and negotiation of uncertain concept definitions). Internet. Advanced Computing Center for the Arts and Design, The Ohio State University. http://hyowonban.com/?page_id=9

Ban, H., Cressie, N., and Ahlqvist, O. (2009). Statistical counterpoint. Internet. The Ohio State University, The Forsythe Company, The Forsythe Foundation, OSU Office of Research, Rotterdamse Dansacademie/Codarts, Tanzplan Deutschland. <http://synchronousobjects.osu.edu/content.html#/statisticalCounterpoint>

Ahlqvist, O. and **Ban, H.** (2009). Movement Density. The Ohio State University, The Forsythe Company, The Forsythe Foundation, OSU Office of Research, Rotterdamse Dansacademie/Codarts, Tanzplan Deutschland. <http://synchronousobjects.osu.edu/content.html#/movementDensity>

MEDIA

Kim, G. (2023). "Give back the 'Nujin' statue!"... Protest by German students. KBS News, September 30, 2023. (<https://n.news.naver.com/article/056/0011575011>)

Manly, R. (2014). The Science Of Samba. Inside CSULB, July 15, 2014 (<http://www.csulb.edu/misc/inside/?p=45230>)

Manly, R. (2014). A Calliope Collaboration. Inside CSULB, May 1, 2014 (<http://www.csulb.edu/misc/inside/?p=46183>)

Kelly, D. (2014). CSULB - Talking Points - Dr. Paul Laris. Beach TV CSULB, Mar 10, 2014 (<http://www.youtube.com/watch?v=liHgzBEqkCg>)

"Job Workshop at CSULB KISA". MBC America, February 8, 2013 (<http://www.mbc-america.com/>)

PAST TEACHING EXPERIENCES

Geography 200 World Regional Geography, Teaching assistant and Guest lecturer, The Ohio State University, Winter 2008, Autumn 2006.

Geography 580 Elements of Cartography, Lab instructor and Guest lecturer, The Ohio State University, Autumn 2008, Spring 2009.

Geography 597.01 World Urbanization, Lab instructor, The Ohio State University, Autumn 2007, Spring 2007.

Geography 607 Fundamentals of Geographic Information Systems, Lab instructor and Guest lecturer, The Ohio State University, Spring 2008.

Geography 680 Numerical Cartography, Lab instructor, The Ohio State University, Winter 2007 / Guest lecturer, Spring 2008.

Geography 685 Intermediate Geographical Information Systems, Lab instructor and Guest lecturer, The Ohio State University, Winter 2009 / Guest lab instructor, Spring 2007.

Introduction to ArcGIS, ESRI Korea, Inc., 2002-2004, Instructor.

Introduction to ArcIMS, ESRI Korea, Inc., 2002-2004, Instructor.

Concepts of GIS and the application, Ewha Womans University, 2000, Lab instructor.

Introduction to Cartography, Ewha Womans University, 1998, Guest lab instructor.

PAST RESEARCH EXPERIENCES

Geographic Applications and Statistical Counterpoint of Synchronous Objects project, The Forsythe Company and The Advanced Computing Center for the Arts and Design (ACCAD), The Ohio State University, 2008-2009. Supervisors: Ola Ahlqvist, Department of Geography; Maria Palazzi, ACCAD; Norah Zuniga-Shaw, Department of Dance, ACCAD; Noel Cressie, Department of Statistics. Award Winner: Communication Arts 2010 Interactive Annual Award (Information Design category), <http://www.commarts.com/interactive/cai10/>

Interactive 3D Visualization of Uncertainty in Exurban Spaces and Concepts, Department of Geography, The Ohio State University, 2007. Supervisor: Ola Ahlqvist, Department of Geography.

Multiscale Exurban Land Markets in Ohio, Graduate Research Associate, Center for Urban and Regional Analysis (CURA), The Ohio State University, 2005-2006. Supervisor: Darla Munroe, Department of Geography.

Web-based Student Lodging Information System around Ewha Womans University II, Graduate Research Associate, Department of Social Studies, Ewha Womans University, 2001. Supervisor: Hyo-Hyun Sung, Department of Social Studies.

Virtual Ideal-Space System around Ewha Womans University, Graduate Research Associate, Department of Social Studies, Ewha Womans University, 2000. Supervisor: Hyo-Hyun Sung.
Commercial Information System around Ewha Womans University, Graduate Research Associate, Department of Social Studies, Ewha Womans University, 2000. Supervisor: Hyo-Hyun Sung.

Information System for Buddhist Temple in Korea, Department of Social Studies, Graduate Research Associate, Ewha Womans University, and Department of Geography Education, Dongguk University, 1999. Supervisor: Hyo-Hyun Sung.

Development of a Website for Middle School Students' Education, Graduate Research Associate, Korea Education & Research Information Services, and Ewha Womans University, 1999. Supervisor: Hyo-Hyun Sung.

Study of Standard Model and Synthetic Program Development for Social Environmental Curriculum, Research Assistant, Department of Social Studies, Ewha Womans University, 1999. Supervisor: Hyo-Hyun Sung.

Study on the Series of GIS Case Studies, Research Assistant, Department of Social Studies, Ewha Womans University, 1999. Supervisor: Hyo-Hyun Sung.

Standardization of Terminology of Geography Information, Research Assistant, Department of Social Studies, Ewha Womans University, 1999. Supervisor: Hyo-Hyun Sung.

Web-based Student Lodging Information System around Ewha Womans University I, Research Assistant, Department of Social Studies, Ewha Womans University, 1999. Supervisor: Hyo-Hyun Sung.

Cultural Information Management System of Electronic Cultural Atlas Initiative (ECAI) Korea, Research Assistant, Ministry of Culture & Tourism, Republic of Korea, and Department of Social Studies, Ewha Womans University, 1997. Supervisor: Hyo-Hyun Sung.

Student Lodging Information System around Ewha Womans University, Research Assistant, Department of Social Studies, Ewha Womans University, 1997. Supervisor: Hyo-Hyun Sung.

Development of Department Website, Programmer and webmaster, Department of Social Studies, Ewha Womans University, 1997. Supervisor: Hyo-Hyun Sung.

Digital Seoul: Making a Digitalized Topographical Map in the Seoul Area, Research Assistant, Department of Social Studies, Ewha Womans University, 1996. Supervisor: Hyo-Hyun Sung.

Development of a Model for Educational Information Using GIS, Research Assistant, The Global Youth Network and Department of Social Studies, Ewha Womans University, 1996. Supervisor: Hyo-Hyun Sung.

SERVICES

Editorial Board Member

Associate Editor (2022 – present); Board member (2014 – 2022). International Journal of Geospatial and Environmental Research (IJGER). <https://ijger-ojs-txstate.tdl.org/ijger/>, SCOPUS Index (since 2019)

Editorial Board (2025 – 2026). Journal of the Korean Geographical Society. <https://journal.kgeography.or.kr/>, ISSN: 1225-6633 (Print)

Editorial Board (2024 – 2025). Journal of the Korean Cartographic Association. <https://journal.cartography.or.kr/>, ISSN: 1598-6160 (Print)

Editorial Board (2016 – present). Spatial Information Research. <https://www.springer.com/journal/41324>, SCOPUS Index (since 2020 with conditional acceptance)

Peer Reviews for Academic Venues

Applied Geography
Emotion, Space and Society
Environment and Planning A
GeoJournal
Geographic Information Science & Technology Body of Knowledge
Geographies
International Journal of Applied Geospatial Research
International Journal of Geo-Information
International Journal of Geographical Information Science
International Journal of Geospatial and Environmental Research
Information
Information Sciences
Journal of Social Sciences
Oxford Bibliographies
Planning
Preventing Chronic Disease
Remote Sensing
Sensors
Spatial Information Research
Sustainability
Transactions in GIS
The Professional Geographer

Department of Geography, California State University, Long Beach

New course development: GEOG 180 & GEOG 90 with Suzanne Perlitsh, Linna Li, Alan Archambault (Mathematics Department, Rio Hondo College), and Waren Roberts (Architecture, Civil and Engineering Drafting Design, CAD and GIS program, Rio Hondo College) (Fall 2025), Approved GE review by EPCC on October 13, 2025.

Faculty hiring committee for a reclassification from Lecturer to Tenure-Track Assistant Professor (Fall 2025)

Faculty hiring committee for a new hire of Tenure-Track faculty in Remote Sensing (Fall 2023)

Chair (Fall 2021 – Spring 2022, Fall 2024 - Spring 2025), Personnel Logistics Committee.

Chair (Spring 2020 – Spring 2022); Member (Fall 2017 – present), Outreach and Alumni Relations Committee.

Member, department chair nominating committee (Spring 2024)

Co-Chair (Fall 2021) with Dr. Linna Li; Member (Fall 2009 – Spring 2022), Geospatial Technologies Committee.

Member (Fall 2021– present), Advisor (Spring 2012 – Fall 2012), Graduate Committee.

Member (Fall 2018 – present), Thesis committee of the MSGISci program.

Organizer (Fall 2017 – present), Geography Colloquium Series, Outreach Committee.

Organizer (Spring 2010 – present), Geography Student Paper Clinic.

Member (Spring 2021), Department Chair Nominating Committee.

Member (Fall 2018, Spring 2020-present), Chair (Fall 2020 – Spring 2021), Lecturer Evaluation Committee.

Member (Fall 2020 – Spring 2021), Evaluation of Tenured Faculty (ETF) Committee.

Member (Fall 2020), Screening Committee for a new hire of Tenure-Track faculty in Remote Sensing, with Suzanne Wechsler (chair) and Paul Laris.

Advisor (Spring 2014), Member (Fall 2013 – Spring 2021), Undergraduate Committee.

Member (Fall 2019 – Spring 2020), Curriculum Committee.

Member (Fall 2018), Screening Committee for a new hire of Tenure-Track faculty in Urban Geography, with Christy Jocoy (chair) and Lily House-Peters.

Member (Spring 2016), Evaluation of Tenured Faculty (ETF) Committee.

Advisor (Spring 2013 – Spring 2015), GIS Certificate.

College of Liberal Arts, California State University, Long Beach

Member (Fall 2017 – Spring 2019, Fall 2024 – Spring 2026), College of Liberal Arts Reappointment, Tenure, and Promotion (RTP) Committee.

Participant, CLA Learning Communities, Spring 2023.

Member (Fall 2021 – Spring 2022, Fall 2023 – Spring 2024), College of Liberal Arts Research, Scholarly, and Creative Activity (RSCA) Committee.

Member (Fall 2021 – Spring 2022), Steering Group, College of Liberal Arts – Strategic Planning Process.

Member (Fall 2019 – Spring 2021), College of Liberal Arts Sabbatical Leave Committee.

Member (Fall 2014 – Spring 2015), Public Relations Sub-Committee of College of Liberal Arts Faculty Council.

California State University, Long Beach

Board Member (Fall 2024 – Spring 2027)/Alternate Member (Fall 2023 – Spring 2024), CSULB Institutional Review Board (IRB).

Faculty Co-Chair (Spring 2023)/ Webmaster (Fall 2023 – Spring 2024), Member (Fall 2023 – present), The Queer and Trans Faculty & Staff Affinity Group (QTFSA), the President's Equity and Change Commission, CSULB, <https://www.csulb.edu/onebeach/trans-and-queer-sfa>.

Board Member (Fall 2021 – Spring 2024), Lesbian, Gay, Bisexual, Transgender, Queer, Intersex + Campus Climate (LGBTQICC) Committee, Office of The Academic Senate, CSULB.

Member (Spring 2022), 2022 Lavender Graduation Organizing Committee, LGBTQICC Committee, CSULB.

Map designer (Summer 2021 – Fall 2021), Flyers for the 11 districts around CSULB, with Strategic Communications, CSULB

Member (Spring 2020), International Education Committee (IEC), Office of The Academic Senate, CSULB.

Member (Fall 2018 – Spring 2020), Faculty Advisory Committee on Technology (FACT), Office of The Academic Senate, CSULB.

Participant (Fall 2019), Complete Count Committee for Census 2020, City of Long Beach, November 8, 2019, AS-127, CSULB.

Juror (Spring 2019), The 31st Annual CSULB Student Research Competition, Research and Sponsored Programs, CSULB, Friday, February 22, 2019.

Chair (2015); Vice Chair (2014); Member (2012 – 2025), East Asia Subcommittee (EASC) of the International Education Committee (IEC).

Organizing Chair (Spring 2016), 2016 CSULB Spring Festival, EASC.

Advisor (2011 – 2014), CSULB Korean International Student Association (KISA).

External Organizations

Poster awards evaluator at the 2026 KSEA South-Western Regional Conference (Spring 2026)

External Reviewer for faculty promotion in Geographic Information Science, Department of Parks, Recreation and Tourism Management, North Carolina State University (Summer 2025)

Chair (Fall 2021 – Spring 2023)/Member (Fall 2023 – Fall 2025), Ethics Council, Korea-America Association for Geospatial and Environmental Sciences (KAGES)
(<http://www.kages.org/season2/category/activities/kages-ethics-council/>)

Mentor (2018 – present), KAGES Mentoring Sessions for international Ph.D. students
Dr. Jaehee Park, post-doctoral researcher, SDSU (Fall 2021- Summer 2024)
Jaehyung Yang, M.A. student, Kyunghee University, Seoul, Korea (Fall 2024 - Summer 2025)
Sewon Ohr, Ph.D. student, The University of Texas at Austin (Fall 2025 - present)

External Reviewer for the Hiring Committee of Associate Professor of Geographic Information Science, Department of Geomatics, Norwegian University of Life Sciences (NMBU) (Fall 2022)

Guest lecturer, “Korean Communities in Los Angeles County, CA - From Geographic Perspectives”, 44th Korean Cultural Experience for Los Angeles Police Department Officers, Korean Cultural Center, 9/16/2021

Interim President (Spring 2019); President (2016); Vice President (2015); Board Member (2011 – 2021); Member (2008 - present), Korea-America Association for Geospatial and Environmental Sciences (KAGES). <http://www.kages.org/>

Volunteer for technical consultation: Digital mapping techniques for community mapping using GIS, with Deshonay Dozier (geography, CSULB), Jaime Garcia (The Stop LAPD Spying Coalition), and Lauren Ilano (UCLA), June 3, 2020, Zoom

Organizing Committee (Spring 2020), KAGES Young Korean Geographers Forums I & II (April 8, 2020, 3:05pm - 6:40pm, Governors Square 12, Sheraton Downtown Hotel, Denver, CO).

Organizing Committee (Spring 2019), KAGES Young Korean Geographers Forums I & II (April 4, 2019, Embassy Room, Omni Shoreham Hotel, Washington D.C.).

Organizing Committee (Spring 2018), KAGES, Young Korean Geographers Forums I & II (April 12, 2018, 3:20pm - 7:00pm, Borgne Room, Sheraton New Orleans Hotel, New Orleans, Louisiana).

Executive Director & Webmaster of Los Angeles Chapter (2016-2018); Newsletter Editor (2015-2016); Webmaster of the Headquarters (2015-2016), Korean Women in Science and Engineering (KWiSE). <http://www.kwise.org/>

Organizing Committee (2016), The 26th Korean-American Scientists and Engineers Association (KSEA) Annual South-Western Regional Conference, California State University, Long Beach, February 22, 2016. <https://ksea.org/us/>

Organizing Committee (2016), Korean-American Women in Science and Engineering (KWiSE) Leadership Conference, Caltech, January 17, 2016.

Co-advisor (2013-2015), Korean-American Scientists and Engineers Association (KSEA) Long Beach Chapter.

Volunteer Consultant (2013 – 2014), Southern California Association of Governments (SCAG, <http://www.scag.ca.gov>).

Guest Speaker (2013), Korean Women's International Network Orange County (KOWIN-OC) Youth Mentoring Conference for Girls, March 23, 2013.

Award Committee (2010 – 2011), Pixoneer Scholarship Awards, Korean-American Association for Geospatial and Environmental Sciences (KAGES).

Representative (2010), California State University System, 2010 UCGIS Summer Assembly.

TRAININGS

Workshop (virtual): Students standing behind ChatGPT and professors standing in front of it, Seoul National University of Science and Technology, South Korea, January 20, 2026.

Webinar (virtual): Esri Teaching with GeoAI, December 2023, August 2025.

ATS Workshop (virtual): Introduction to AI Tools for Teaching and Learning, December 2024.

ATS Workshop (virtual): Student Perspectives on AI, July 2024.

CSULB Drupal training as QTFSA webmaster, August 10, 2023.

LA1-301&303 AV systems training, August 10, 2023.

Service Learning Curriculum Design Series, The Center for Community Engagement, CSULB: Conversion of GEOG 482 for Spring 2024: Certified, June 5, 2023.

KAGES Google Earth Engine Workshop, May 15-16, 2023.

Faculty Climate Justice & Sustainability Across the Curriculum Workshop, April 21, 2023.

CSU: Independent Improving Your Online Course (IYOC), Quality Matters, January 25, 2021.

Misty Jaffe Early Leaders Program, College of Liberal Arts, CSULB, Spring 2020 – Spring 2021.

Conflict Resolution in the Classroom: Supporting and Providing Early Intervention for Vulnerable Student Population, Thursday, October 29, 2020, Faculty Center, CSULB.

Equity-Minded Alternative Forms of Assessment in Remote Instruction” workshop yesterday, October 23rd, 2020, Faculty Center, CSULB.

Go Virtual Symposium, CSULB, Summer 2020.

CSU Discrimination Harassment Prevention, January 2026.

CSU Conflicts training, March 2025

CSU Data Security Introduction and FERPA, September 2025.

CSU-Workplace Violence Prevention, August 2025.

Gender Equity and Title IX, August 2025.

Quality Matters Workshop-CSULB: Improving Your Online Course (2019), CSULB.

CSULB International Student Ally Training, CSULB Center for International Education (CIE), Friday, March 22nd, 2019.

Grant Development Workshop, The Office of Research and Sponsored Programs (ORSP), CSULB, Friday, February 15, 2019.

Understanding the Cleary Act (CSU), 2019, 2020.

Data Security and FERPA, 2019-present.

RTP Workshops for Candidates and Evaluators, CSULB, Tuesday, September 4, 2018, Tuesday, October 2, 2018.

Workshop, 2014 Geography Faculty Development Alliance (GFDA) Workshop. June 22-28, 2014, Department of Geography, University of Connecticut.

Ewha Computer Certificate. September 1995-August 1996, Ewha Institute of Certificates, Ewha Womans University.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Member (Fall 2025 – present). Database for Overseas Korean Scientists & Engineers, Korean Federation of Science & Technology Societies, South Korea

Member (2023 – present). National Honor Society for Geospatial Technology, GAMMA SIGMA THETA ($\Gamma\Sigma\Theta$).

Member (2015 – present), Korean-American Women in Science and Engineering (KWise, <https://www.kwise.org/>).

Member (2009 – present), Korean-American Scientists and Engineers Association (KSEA, <http://ksea.org/>).

Member (2009 – present), California Faculty Association (CFA, <http://www.calfac.org/>).

Member (2009 – present), Korea-America Association for Geospatial and Environmental Sciences (KAGES, <http://www.kages.org/>).

Member (2008 – present), Cyber Infrastructure Specialty Group (CISG), American Association of Geographers (AAG).

Member (2006 – present), Cartography Specialty Group (CSG), AAG.

Member (2004 – present), AAG.

Member (2014 – 2018), Korean American University Professors Association (KAUPA, <http://beta.kaupa.org/>).

Member (2009 – 2015), California Map Society (CMS, <http://californiamapsociety.org/>).

PAST ADMINISTRATIVE EXPERIENCES

Mentor (2008 – 2009), Mentorship Program for New Graduate Students, Geography Graduate Organization (GGO), Department of Geography, The Ohio State University.

Volunteer (2007 – 2009), Student Recruitment Weekend, Department of Geography, The Ohio State University.

Website Consultant (2005 – 2006), Geography Graduate Organization (GGO), Department of Geography, The Ohio State University.

Assistant Manager (2001 – 2004), Technical Support of ESRI products, ESRI Korea, Inc.

Product Manager (2003 – 2004), ArcWeb Services, ESRI Korea, Inc.

Graduate Technical Associate (1999 – 2001), GIS Laboratory, Department of Social Studies, Ewha Womans University.

SKILLS

AI literacy: programming, data processing, data summary, grammar, translation

GIS & Remote Sensing (RS) Software

ArcGIS Pro/Desktop, QGIS, IDRISI, MapInfo Professional, Auto CAD, ERDAS Imagine, ER Mapper, and ICube

Visualization Hardware

Igloo, GeoWall, CAVE, head-mount display

Virtual-Environment Development Software

ArcGIS Pro, ArcGIS CityEngine, 3DVIA Virtools, Google Earth, Google Sketchup, Unity, Blender

Statistics/Visual Analytics Software

R, RGGobi, GGobi, WinBugs, SPSS, GeoDa, GeoViz Toolkit

GPS Hardware

Trimble GPS, Garmin GPS

Mobile Hardware for field work with GPS

ArcGIS Survey 123, PDA, Tablet PC

Development Languages

Python, Notebooks, ActionScript, JavaScript, HTML, VRML, XML, KML, Visual Basic, ASP, JSP

Web Development Software

WordPress, Drupal, Flash, Dream Weaver, FrontPage, HotDog, Namo Web Editor

Computer Graphics Software

Adobe Photoshop, Adobe Illustrator, Adobe Bridge, Adobe Premier, Adobe AfterEffects, Adobe Media Encoder, Corel Paint Shop Pro, Autodesk Maya, CamStudio, Windows Movie Maker

Database Management System

Oracle, SQL, MS Access

Video Production for Virtual Instruction

Camtasia, Adobe Premier

Others

Microsoft Office, Windows, Linux, Unix, MS-DOS, Mac OS

(Last updated on February 9, 2026)