Woojin Jung

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Education

2019	University of California, Berkeley, Ph.D., Social Welfare Designated Emphasis: Development Engineering Dissertation: *Combating Poverty through Aid: A Critical Analysis of Alternative Models* Committee: Neil Gilbert (Chair), Jill D. Berrick, Alain de Janvry, Clair Brown Award: Outstanding Dissertation Award, Society for Social Work and Research, 2020
2007	Harvard Kennedy School, Master in Public Policy Concentration: Political and Economic Development Policy Analysis Exercise: *Analysis of Impact Evaluation Systems for KOEXIM Bank's Bilateral Development Loans*
2004	Washington University in St. Louis, Master of Social Work Concentration: Social and Economic Development
1998	Ewha Womans University in Seoul, Korea, Bachelor of Arts in Social Welfare Minor: Education Psychology

Academic Appointments

07/2026–present	Associate Professor, School of Social Work, Rutgers University
07/2019–06/2026	Assistant Professor, School of Social Work, Rutgers University
02/2020–present	Core Faculty, Rutgers Global Health Institute
2018–2019	Statistician, University of California, Berkeley
2011–2012	Research Fellow, Graduate School of International Studies, Ewha Womans University, Seoul, Korea
2010	Lecturer, Sogang University, Seoul, Korea
2007–2008	Data Analyst, Criminal Justice Program and Management at the Malcolm Wiener Center for Social Policy, Harvard Kennedy School, Cambridge, MA

Publications

Articles in Refereed Journals

2026 **Jung, W.**, Kim, A. H., Sinha, A., Stoeffler, Q., Ghadimi, S., Shah, V., Garg, K., & Ammari, T.
Multimodal poverty mapping and geographic transfer allocation.
Sustainable Cities and Society, vol. 142 (15 May 2026), 107248.

2026 **Jung, W.**, Kim, A. H., Hung, Y., Chear, C., Shah, V., & Ammari, T.
Digital pulse of development: Leveraging social media discourse for poverty analysis.
Information Processing & Management, 63(7), 104579.

2026 **Jung, W.**, Benotsmane, R., Stoeffler, Q., Kim, A. H., Ghadimi, S., Hosseini, M., Ntarlagiannis, D., Ammari, T., Lu, Y., & Steiner, J.
Contextualized poverty targeting with multimodal spatial data and machine learning in Brazzaville, Congo.
Cities, 170, 106429.

2025 **Jung, W.**, Kim, A. H., Stoeffler, Q., Goudarzi, S., Benotsmane, R., & Shah, V.
Targeting urban poverty and food insecurity: A community-informed spatial analysis and machine learning approach.
Sustainable Cities and Society, vol. 134 (15 November 2025), 106799.

2025 **Jung, W.**, Sinha, A., Kim, A. H., Shah, V., Lu, Y., Lee, L., & Ammari, T.
The last mile in remote sensing poverty prediction.
ACM Journal on Computing and Sustainable Societies, 3(3), Article 16.

2025 **Jung, W.**, Ghadimi, S., Ntarlagiannis, D., & Kim, A. H.
Using Artificial Intelligence/Machine Learning to evaluate the distribution of community development aid across Myanmar.
Socio-Economic Planning Sciences, 98, 102139.

2024 **Jung, W.**, Kim, A. H., & Chear, C.
Data Science and Social Work.
Encyclopedia of Social Work. Oxford University Press.

2023 Bukhari, M. H., Shad, M. Y., Nguyen, U. D. T., Treviño, J. A., **Jung, W.**, Bajwa, W. U., Gallego-Hernández, A. L., Robinson, R., Corral-Frías, N. S., Hamer, G. L., Wang, P., Annan, E., Ra, C. K., Keellings, D., & Haque, U.
A Bayesian spatiotemporal approach to modelling arboviral diseases in Mexico.
Transactions of The Royal Society of Tropical Medicine and Hygiene, 117(12), 867–874.

2023 **Jung, W.**
Mapping community development projects: Spatial analysis in Myanmar.
World Development, 164.

2022 **Jung, W.**
The discrepancy between two approaches to global poverty: What does it reveal?
Social Indicators Research, 162(3), 1313–1344.

2020 **Jung, W.**
Two models of community-centered development in Myanmar.
World Development, 136.

2020 **Jung, W.**
Using data science to strengthen the social safety net: Predicting risk for Medicare and Medicaid insurers.
Journal of Governmental Studies, 26(2), 29–61. [In Korean]

2020 Organista, K. C., **Jung, W.**, & Neilands, T.
A structural-environmental model of alcohol and substance-related sexual HIV risk in Latino migrant day laborers.
AIDS and Behavior, 24(11), 3176–3191.

2020 Wu, C.-F., Chang, Y.-L., Rhodes, E., Musaad, S., & **Jung, W.**
Work-hour trajectories and associated socioeconomic characteristics among single-mother families.
Social Work Research, 44(1), 47–57.

2019 Organista, K., **Jung, W.**, & Neilands, T.
Working and living conditions and psychological distress in Latino migrant day laborers.
Health Education & Behavior, 46(4), 637–647.

2018 Kim, P. H., & **Jung, W.**
Ownership and planning capacity in the Asian-style development cooperation: Korean knowledge sharing program to Vietnam.
Korea Observer, 49(2), 349–368.

Articles in Refereed Conference Proceedings

2025 **Jung, W.**, Kim, A. H., Hung, Y., Chear, C., Shah, V., & Ammari, T.
Digital pulse of development: Constructing poverty metrics from social media discourse.
In *Proceedings of the 5th ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'25)*. Association for Computing Machinery.
Honorable mention.

Works in Progress

2026 Hosseini, M., Solunke, P., Adzakpah, O., & **Jung, W.** (Work in progress).
What we see, what we leave out: Satellite imagery and infrastructure mapping in Zambia.
Accepted for presentation at the American Association of Geographers (AAG) Annual Meeting, February 2027.

2026 **Jung, W.**, Shah, V., & Hoque, M. (Work in progress).
The rigor of data science and machine learning methods in social welfare: An iterative human–LLM approach to scaling systematic review.
Accepted for presentation at the Society for Social Work and Research (SSWR) 31st Annual Conference, January 2027.

2026 **Jung, W.**, Alvarez, M., Zheng, H., Shah, V., & Hoque, M. (Working paper). Community ties and economic recovery after displacement: Evidence from the Philippines

2026 **Jung, W.**, Carney, P., Shah, V., Vishnubhotla, V., & Lee, L. (Working paper).
Poverty, environment, and canine health: A spatial One Health analysis using the Golden Retriever Lifetime Study.

Books and Book Chapters

2016 **Jung, W.**
Korea's development assistance in fragile states: What is at stake?
In B. M. Howe (Ed.), *Post-conflict development in East Asia* (pp. 195–220).
Routledge.

2015 Kim, P. H., & **Jung, W.**
Does domestic welfare reform spill into development assistance overseas? The Korean case.
In R. Hasmath (Ed.), *Inclusive growth, development and welfare policy* (pp. 44–59).
Routledge.

2011 Kharas, H., Makino, K., & **Jung, W.** (Eds.).
Catalyzing development: A new vision for aid. 305 pages.
Brookings Institution Press.

Other Publications

2021 **Jung, W.**
Review of the book *Becoming one: Religion, development, and environmentalism in a Japanese NGO in Myanmar*, by C. Watanabe.
Pacific Affairs, 94(4), 781–783.

2016 **Jung, W.**
Poverty and development.
In Korea International Cooperation Agency (KOICA) (Ed.), *International development cooperation: Advanced level* (pp. 559–665).
Korea International Cooperation Agency (KOICA). [In Korean]

2013 Chun, S.-H., & **Jung, W.**
Delivering aid to African agriculture: New directions.
World Agriculture, 153(5), 55–80. [In Korean]

2010 **Jung, W.**
The Korean Development Cooperation Model: From the perspective of Korean experience and comparative advantage.
Journal of International Development Cooperation, (1), 69–91. [In Korean]

2010 **Jung, W.**, & Chung, Y.-A.
Cross-cutting issues: Poverty.
Journal of International Development Cooperation, (4), 120–150.

2010 **Jung, W.**
Successful Asian Recipients: Case studies of Korea and Vietnam.
Journal of International Development Cooperation, (3), 120–150.

2010 **Jung, W.**
The strategic partnership between Samsung Electronics and UNICEF India.
Journal of International Development Cooperation, (1), 92–124.

2010 **Jung, W.**
Financial analysis and performance measurement of Oxfam America.
Journal of International Development Cooperation, (2), 108–126.

Policy Reports

02/2025 Kang, M., **Jung, W.**, & Kim, Y.
Study on assessing the vulnerability of climate-induced internally displaced persons (IDPs) and developing a project model to strengthen community resilience in the Philippines.
Korea International Cooperation Agency (KOICA). 215 pages.

11/2012 **Jung, W.** et al.
A systematic review of evaluation reports by Korea's ODA implementing agencies.
Office of the Prime Minister, Director-General for Development Cooperation Policy.

10/2012 **Jung, W.** et al.
Development of technology inventory for ODA projects.
Ministry of Foreign Affairs, Development Cooperation Bureau.

08/2012 **Jung, W.** et al.
Social protection programs for the urban poor in the Global South.
Korea International Cooperation Agency.

12/2011 **Jung, W.**
Promoting pro-poor growth: Policy guidance.
Korea International Cooperation Agency.

09/2011 **Jung, W.**
Development of content for Korea's integrated government web platform on official development assistance.
Office of the Prime Minister, Director-General for Development Cooperation Policy.

01/2011 **Jung, W.**, & Chung, Y.-A.
Strengthening the decentralized approach to aid management.
Korea International Cooperation Agency.

12/2010 **Jung, W.**
Korean development cooperation model: Sectoral programs based on Korean experience and comparative advantage.
Korea International Cooperation Agency.

2006 Bajracharya, A., **Jung, W.**, Prabhakar, B., & Singh, D.
Empowerment of women from an excluded community in Bihar State.
UNICEF India.

Conferences, Presentations, and Lectures

Invited Talks and Workshops

2026 **Intergovernmental Panel on Climate Change (IPCC).**
Workshop on Engaging Diverse Knowledge Systems and Methods of Assessment.
Reading, United Kingdom, February 10–12, 2026. (Fully funded; Workshop report)

2026 "Contextualized poverty targeting with multimodal spatial data and machine learning in Brazzaville, Congo."
Data Infrastructure for Development (DID) Summit.
Center for Effective Global Action (CEGA), **University of California, Berkeley**.
Lomé, Togo, February 19, 2026. (Fully funded)

2025 "Targeting Urban Poverty and Food Insecurity: A Community-informed Spatial Analysis and Machine Learning Approach."
Global Policy Lab, Doerr School of Sustainability, **Stanford University**.
Stanford, California, August 28, 2025.

2025 "Targeting Urban Poverty and Food Insecurity: A Community-informed Spatial Analysis and Machine Learning Approach."
Seminar at the Institute for Research on Labor and Employment
University of California, Berkeley.
Berkeley, California, August 27, 2025. (Fully funded)

2025 "Contextualized poverty targeting through multimodal spatial data and machine learning in Brazzaville, Congo."
13th Annual Africa Evidence Summit.
Center for Effective Global Action (CEGA), **University of California, Berkeley**.
Nairobi, Kenya, June 23–24, 2025. (Fully funded)

2025 "Geographic targeting of food security in urban areas informed by community-driven insights."
International Conference on Integrated Health and Social Work.
National Taiwan University.
Taipei, Taiwan, May 29, 2025. (Partially funded)

2025 "Targeting Urban Poverty and Food Insecurity: A Community-informed Spatial Analysis and Machine Learning Approach."
Institute of Social Welfare, **Seoul National University**.
Seoul, Korea, September 2025.

2024 Invited participant, Technical Executive Committee Meeting on the "AI for Climate Action Initiative."
United Nations Framework Convention on Climate Change (UNFCCC).
Bonn, Germany.

2023 "Using AI/ML to measure poverty and strengthen social safety net: The case of Sub-Saharan Africa and Southeast Asia."
Seoul National University.
Seoul, Korea, July 2023.

2022 Innovation-technology-inclusion special lecture series.
Ewha Womans University.
Seoul, Korea, May 2022.

2021 "Addressing global poverty through the convergence of AI and social welfare."
Sungkyunkwan University.
Seoul, Korea, September 2021.

2021 Innovation-technology-inclusion special lecture series.
Ewha Womans University.
Seoul, Korea, April 2021.

2020 "Combining satellite imagery with deep learning to predict poverty in data-sparse contexts."
Korea Association of International Development and Cooperation (KAIDEC) and Asia Center at **Seoul National University**.
Seoul, Korea, July 2020.

2020 "Using machine learning to evaluate aid distribution."
Institute of Governmental Studies, **Korea University**.
Seoul, Korea, January 2020.

2012 "Korea's assistance to fragile states."
East Asian Development and Human Security Workshop.
Harvard University.
Cambridge, Massachusetts, November 2012.

2011 "Korea: The road from a successful recipient to a major donor."
4th Seoul ODA International Conference.
Ministry of Foreign Affairs, Republic of Korea.
Seoul, Korea, November 2011.

Conference Presentations

2026–2027 **Jung, W.**, Kim, A. H., Sinha, A., Stoeffler, Q., Ghadimi, S., Shah, V., Garg, K., & Ammari, T.
"Multimodal Poverty Mapping and Geographic Transfer Allocation."
Accepted at:
- Trustworthy AI for Good (AI4GOOD) Workshop, Conference on Neural Information Processing Systems **(NeurIPS 2026)**.
- Celebrating Geographic Analysis: Past, Present, and Future, 20th Anniversary Annual Conference. **Harvard Center for Geographic Analysis (CGA)**.
- 6th **ACM** Conference on Equity and Access in Algorithms, Mechanisms, and Optimization **(EAAMO'26)**. (Poster)
- Society for Social Work and Research 31st Annual Conference **(SSWR)**. January 2027. Presented as "Leveraging Multimodal Deep Learning Models for Poverty Mapping and Geographic Transfer Allocation."

2027 Hosseini, M., Solunke, P., Adzakpah, O., & **Jung, W.**
"What We See, What We Leave Out: Satellite Imagery and Infrastructure Mapping in Zambia."
Session: "Measurable from Space, Usable on the Ground? Satellite Data, Access and Data Justice."
American Association of Geographers **(AAG)** Annual Meeting. New York, New York. February 2027. (Accepted)

2027 **Jung, W.**, Kim, A. H., Stoeffler, Q., Goudarzi, S., Benotsmane, R., & Shah, V.
"Targeting Urban Poverty and Food Insecurity: A Community-informed Spatial Analysis and Machine Learning Approach."
Session: "Measurable from Space, Usable on the Ground? Satellite Data, Access and Data Justice."
American Association of Geographers **(AAG)** Annual Meeting. New York, New York. February 2027. (Accepted)

2027 **Jung, W.**, Shah, V., & Hoque, M.
"Scaling Systematic Review with LLMs: Iterative Human–LLM Alignment and the Rigor of Data Science in Social Welfare and Policy."
Society for Social Work and Research 31st Annual Conference **(SSWR)**. January 2027. (Accepted)

2026 **Jung, W.**, Kim, A. H., Hung, Y., Chear, C., Shah, V., & Ammari, T.
"Digital Pulse of Development: Constructing Poverty Metrics from Social Media Discourse."
Society for Social Work and Research Annual Conference **(SSWR)**. Washington, DC. January 16, 2026.
Also organized and led the pre-conference workshop "Spatial Data Science: Visualizing and Analyzing Community Needs" (with Kim, A. H., & Shah, V.), January 15, 2026.

2025 **Jung, W.**, Sinha, A., Kim, A. H., Shah, V., Lu, Y., Lee, L., & Ammari, T.
"The last mile in remote sensing poverty prediction."
Presented at:
- Association for Public Policy Analysis and Management **(APPAM)** Conference. Seattle, Washington. November 13–15, 2025.
- **ACM** Conference on Computing and Sustainable Societies **(COMPASS)**. University of Toronto, Toronto, Canada, July 22–25, 2025.
- Symposium on Spatiotemporal Data Science. **Harvard Center for Geographic Analysis (CGA)**, Cambridge, Massachusetts. May 24, 2025.

2025 **Jung, W.**, Kim, A. H., Hung, Y., Chear, C., Shah, V., & Ammari, T.
"Digital pulse of development: Constructing poverty metrics from social media discourse."
5th **ACM** Conference on Equity and Access in Algorithms, Mechanisms, and Optimization **(EAAMO'25)**.
Pittsburgh, Pennsylvania, November 5–7, 2025.

2025 **Jung, W.**, Stoeffler, Q., Kim, A. H., Goudarzi, S., Benotsmane, R., & Shah, V.
"Geographic targeting in urban areas informed by community-driven insights."
Society for Social Work and Research **(SSWR)**.

2025 **Jung, W.**
"Contextualized poverty targeting through multimodal spatial data and machine learning in Congo."
Society for Social Work and Research **(SSWR)**. (Poster)

2024 **Jung, W.**
"Contextualized poverty targeting through multimodal spatial data and machine learning in Congo."
ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization **(EAAMO'24)**. (Poster)

2023 **Jung, W.**, Ghadimi, S., Ntarlagiannis, D., & Kim, A. H.
"Using Artificial Intelligence/Machine Learning to evaluate the distribution of community development aid across Myanmar."
ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization **(EAAMO'23)**. (Poster)
Northeastern University, Boston, Massachusetts.

2022 **Jung, W.**
"AI-informed vulnerability index to target food security pack in Zambia."
International Conference on Sustainable Development **(ICSD)**.
Columbia University, New York, New York.

2022 **Jung, W.**
"AI-informed vulnerability index to target food security pack in Zambia."
Association for Public Policy Analysis and Management **(APPAM)**.
Austin, Texas. March 27, 2022.

2022 Ziemer, K., Ren, C., Rodriguez, M., & **Jung, W.**
"Social Media as a Source of Data — Lessons Learned and Implications for Utilizing Computational Methods in Social Work Research."
Society for Social Work and Research **(SSWR)**.
Washington, DC. January 16, 2022.

2021 **Jung, W.**
"Using deep learning to evaluate the distribution of community development aid."
Society for Social Work and Research **(SSWR)**.

2020 Lee, J., **Jung, W.**, & Ren, C.
"Teaching data science in social work: Lived experiences and future directions."
Accepted as a Panel in the Research and Program Evaluation Track at the Council on Social Work Education **(CSWE)** 66th Annual Program Meeting.

2020 **Jung, W.**
"Mapping community-led development aid: Combining satellite imagery and spatial data."
Society for Social Work and Research **(SSWR)**.
Washington, DC.

2019 **Jung, W.**
"Mapping community-led development projects: Spatial analysis in Myanmar."
Poster presented at:
- Geospatial Analysis for International Development **(Geo4Dev)**. Berkeley, California.
- Society for Social Work and Research **(SSWR)**. Washington, DC.
- International Conference on Sustainable Development **(ICSD)**. New York, New York.
- Association for Public Policy Analysis and Management **(APPAM)**. Denver, Colorado. November 7, 2019.

2018 **Jung, W.**
"Discrepancy between two approaches to global poverty: What does it reveal?"
Society for Social Work and Research **(SSWR)**.
Washington, DC.

2018 **Jung, W.**, & Organista, K.
"Working and living conditions and psychological distress in Latino migrant day laborers."
Society for Social Work and Research **(SSWR)**.
Washington, DC.

2017 **Jung, W.**
"Analytical framework for community-driven development in fragile states: A case study in Myanmar."
Development Studies Association **(DSA)**.
Bradford, UK.

2017 **Jung, W.**
"Evidence in a changing aid landscape."
Development Studies Association **(DSA)**.
Bradford, UK.

2016 **Jung, W.**
"Discrepancy between two approaches to global poverty: What does it reveal?"
Development Studies Association **(DSA)**.
Oxford, UK.

2015 **Jung, W.**
"More aid to countries in need?"
International Conference on Sustainable Development **(ICSD)**.
New York, New York.

2012 Kim, P. H., & **Jung, W.**
"Does the welfare-ODA nexus exist?"
Asian Political and International Studies Association **(APISA)**.
Hong Kong.

Funding

External Grants

2026–2028 Developing High Resolution Vulnerability Index to Improve Community Resilience in New Jersey.
Funder: National Oceanic and Atmospheric Administration **(NOAA)** & New Jersey Sea Grant Consortium
Role: PI
Status: Awarded

2025–present Poverty, Environment, and Canine Health: A Spatial One Health Analysis Using the Golden Retriever Lifetime Study.
Funder: Morris Animal Foundation
Role: PI
Support: Data grant providing access to Golden Retriever Lifetime Study data (no funds)

2025–2026 Leveraging AI/ML in Poverty Targeting & Social Safety Net Programs.
Funder: National Science Foundation **(NSF)** ACCESS Program
Role: PI
Support: 2,000 GPU compute hours

2023–2024 Assessing the Vulnerability of Climate-Induced IDP Communities and Developing Climate Resilience Models in the Philippines.
Funder: Korea International Cooperation Agency **(KOICA)**
Role: co-PI (PI: Minah Kang)

2021–2023 AI for Humanitarian Action Project.
Funder: **Microsoft Corporation**. (Azure Grant)
Role: PI
Support: Azure cloud credits (in kind)

Internal Grants

2025–2026 Robust Spatial Poverty Prediction and Data-Driven Resource Allocation.
Funder: School of Social Work, Rutgers University. (Department Seed Grant)
Role: PI

2023–2025 Detecting Human-Interpretable Features from Satellite Imagery to Support Poverty Mapping.
Funder: Office for the Vice Provost for Research (OVPR). (AI/ML Pilot Seed Grant)
Role: PI

2023–2024 Improving Distribution of Food Aid via Trustworthy Multimodal Poverty Prediction.
Funder: Cyberinfrastructure & AI for Science and Society (CASS). (Seed Grant)
Role: PI

2021–2023 Developing AI-informed Vulnerability Index to Target Food Security Pack Program in Zambia.
Funder: Graduate Research Council, Rutgers University. (Collaborative Multidisciplinary Awards)
Role: PI

2021–2022 Exploring Scalable Multimodal Approaches to Identify Vulnerable Populations in the Congo.
Funder: Global Health Institute.
Role: PI

Contracts

09/2024	Expert consultation on the Korean government's strategy to promote artificial intelligence (AI) for climate action initiatives at the UNFCCC, Bonn, Germany. Funder: Korea International Cooperation Agency. Role: PI.
07/2015–10/2015	Consultation on designing and evaluating rural community development projects in Myanmar and Nepal. Funder: Korea Development Strategy. Role: PI.
06/2013–12/2013	Performance Evaluation of the Lee Jong-Wook Fellowship Training (One-Year Medical Program). Funder: Korea International Cooperation Agency (KOICA). Implementing agency: Korea Foundation for International Healthcare. Role: co-PI (PI: Minah Kang).
2013–2019	Managing Integrated Rural Development Projects in Myanmar and Nepal. Funder: Korea International Cooperation Agency. Role: Lead author of the project proposal.
07/2012–10/2012	Strategies for building and using a technology inventory for Official Development Assistance (ODA) projects. Funder: Korea Ministry of Foreign Affairs. Role: PI.
06/2012–11/2012	A systematic review of evaluation reports by Korea's ODA implementing agencies. Funder: Korean Prime Minister's Office. Role: Project lead and corresponding author for both proposal and report.
05/2011–08/2011	Development of content for Korea's integrated government web platform on Official Development Assistance (ODA). Funder: Office of the Prime Minister. Role: Project Lead and Principal Author.
2011–2012	Social protection programs for the urban poor in the Global South. Funder: Korea International Cooperation Agency (KOICA). Role: Project Lead and Principal Author for both proposal and report.

Teaching Activities

Teaching

Current Institution (Rutgers University)

- AI & Spatial Data Science for Global Development (Ph.D. Seminar), Spring 2026
- Advanced Statistical Methods II: Generalized Linear Models (Ph.D. Seminar), Spring 2020, 2021, 2022, 2024
- Program Evaluation, Fall 2020, 2021, 2022, 2024
- Social Welfare Policy, Fall 2023, Spring 2024
- Research Methods I, Spring 2021, 2022, 2025

Previous Institutions

- Social Welfare Policy, U.C. Berkeley, Summer 2018
- Berkeley Connect (Mentored undergraduates in small-group format), U.C. Berkeley, 2017–2018
- Data Science Discovery (Undergraduate Research Apprentice Program), U.C. Berkeley, 2015–2016
- Seminar in Social Welfare Research (Graduate Student Instructor), U.C. Berkeley, 2014–2016
- Social Work as a Profession (Graduate Student Instructor), U.C. Berkeley, Spring 2014
- Multi-Ethnic Societies & Conflict Management, Ewha Womans University, Spring 2012
- Globalization and Development, Ewha Womans University, Spring 2011

- International Cooperation, Sogang University, Spring 2010

Other teaching roles

- Economic Analysis of Public Policy (TA), Harvard University, Fall 2006
- Quantitative Analysis & Empirical Methods (TA), Harvard University, Spring 2006

Curricular Development

01/2026 *AI & Spatial Data Science for Global Development (Ph.D.)*
Developed a doctoral-level course emphasizing applied spatial data science for global development, including novel data sources, collaborative policy-relevant research projects, and hands-on computational training.

01/2021 *Advanced Statistical Methods II: Generalized Linear Models*
Developed the course structure, instructional materials, and assessments.

10/2021 Outreach/Instructional Resource: Developed a YouTube tutorial on Visual Studio Code for Azure Cloud Computing, in collaboration with a research assistant.

2016 Contributed to the textbook *International development cooperation: Advanced level*
Dissemination: In Korean.

Students Supervised and Mentored

Doctoral - Committee

2023–present Andrew H. Kim, Doctoral student in Social Work.
Dissertation Committee Member

2022–present Charles Chear, Doctoral student in Social Work.
Dissertation Committee Member

2022 Maryam Hosseini, Ph.D. in Urban Systems.
Served on Dissertation Committee, 1 hour per week.
Dissertation title: "A walk in the city using large data sets to analyze urban sidewalks."

Research Mentoring - Postdoctoral

2026–present Manny Alvarez, Ph.D., Postdoctoral Associate, Center of Alcohol & Substance Use Studies, Graduate School of Applied and Professional Psychology.

Research Mentoring - Doctoral

2026–present Yupei Shu, Doctoral student in Industrial and Systems Engineering. Developing a high-resolution hazard-vulnerability index for my NOAA Sea Grant project on community resilience in New Jersey.

2026–present Huiyuan Zheng, Doctoral student in Economics, collaborating on multiple papers

2026–present Qing Shi, Doctoral student in Economics.

2026 Abhinav Chattaraj, Doctoral student in Economics.

2025-2026 Jessica Willard, Doctoral student in Social Work.

2023-2026 Sajedeh Goudarzi, Doctoral student in Global Urban Studies. Co-authored a community-informed spatial analysis paper (*Sustainable Cities and Society*, 2025); literature review, qualitative analysis, and manuscript preparation.

2022–present Andrew H. Kim, Doctoral student in Social Work. Research and teaching assistantship; co-authored papers, AI/ML poverty modeling, and communication with partners in Zambia and the Republic of the Congo.

2022–2026 Charles Chear, Doctoral student in Social Work. Independent studies; NLP and topic modeling of Twitter data from Zambia; co-authored papers on social media and poverty.

2022–2026 Rofaida Benotsmane, Doctoral student in Economics, Istanbul Technical University. Targeting simulations for Brazzaville and Lusaka; co-authored social transfer targeting papers.

2022–2024 Maryam Hosseini, Ph.D. in Urban Systems. Geospatial analysis and computer vision; supervises data annotation and fine-tunes semantic segmentation models; co-authored the Brazzaville paper (*Cities*, 2026).

2023–2024 Yuxiao Lu, Doctoral student in Computer Science, Singapore Management University. Explainable AI for poverty prediction in Brazzaville and Zambia; co-authored papers in *ACM Journal on Computing and Sustainable Societies* (2025) and *Cities* (2026).

2023–2024 Kai Tan, Doctoral student in Statistics. Graduate assistantship; combined high-dimensional statistics with machine learning to predict poverty in Brazzaville.

2023 Xingjia Wang, Doctoral student in Statistics. Combined high-dimensional statistics with machine learning to predict aid investment in Myanmar.

2021–2022 Matthew Purri, Doctoral student in Electrical and Computer Engineering. Computer vision and satellite imagery research; grant proposal, Azure setup, and literature review.

2021–2022 Natalie Pope, Doctoral student in Social Work. Research project developed in my course; statistical analysis in R and revise-and-resubmit support for Myanmar projects.

2021–2022 Alisha Cupid, Doctoral student in Social Work. Research internship on poverty in Zambia; manuscript preparation, grant application, and data extraction.

2021–2022 Mel Yu, Doctoral student in Social Work. Coordinated research meetings, drafted a manuscript, and connected the team with experts.

2019–2025 Jordan Steiner, Doctoral student in Social Work. Co-authored the Brazzaville paper (*Cities*, 2026); human coder for NLP; liaison with Francophone collaborators.

Research Mentoring - Master's

2026–present Mozammel Hoque, (Master of Public Policy student. Research assistant and co-authoring a paper), Ariana Caruso (MSW student. Research assistant).

2020–2025 Master's research assistants: Javier Velasquez (Information), Dev Vora (Computer Science), Harish Udhaya Kumar (Computer Science), Jamie Cramer (Social Work), Eunice Park (Social Work), and Ann Marie Rybka (Social Work, Supervised research field placement).

Research Mentoring - Undergraduate

2025–present Varshini Vishnubhotla, Computer Science. Honors thesis advisor.

2021–present Research assistants: Vatsal Shah (B.S., Computer Science and Statistics; co-author on multiple papers), Lami Lee (Animal Science), and Layth Bischoff-Hashem (Business).

2026–present Intern: Lina Johnson (Communication).

Service

International Scientific Assessment

2026–present Contributing Author, Seventh Assessment Report (AR7), Intergovernmental Panel on Climate Change **(IPCC)**.
Contributing to the assessment of poverty and vulnerability using multimodal data.

2026–present Expert Reviewer, Seventh Assessment Report (AR7), Intergovernmental Panel on Climate Change **(IPCC)**, Working Group II.

2026 Helped develop AI use guidelines for IPCC authors through the IPCC Workshop on Methods of Assessment.

International Development Advisory

2026–present AI Expert, Korea International Cooperation Agency **(KOICA)**.
Reviewing AI use in the KOICA Country Program for Vietnam and advising on support for the UNFCCC's AI for Climate Action initiative.

Editorial and Reviewing Activities

2026–present Grant proposal reviewer, Swiss National Science Foundation

2025 Program Committee Member and Paper Reviewer: ACM Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO).

2020–present Ad-hoc Reviewer
Sustainable Cities and Society npj Urban Sustainability, *Sustinable Development*, *World Development*, *PLOS ONE*, *Scientific Reports*, *Socio-Economic Planning Sciences*, *Information Processing & Management*, *Social Science and Medicine*, *Social Indicators Research*, *European Journal of Development Research*, *Society for Social Work and Research*, *Humanities and Social Sciences Communications*, *Economics of Disasters and Climate Change*, *The International Review of Public Administration*, *International Journal of Social Welfare*.

2020 Editorial board member of the Korean Association for Public Administration.

Organizing and Chairing Activities

2026 Session Chair, "Spatial Methods and Geographic Dimensions of Policy Evidence," Association for Public Policy Analysis and Management (APPAM) 2026 Conference.

2026 Moderator, Aligning Ethical AI in Social Work, Virtual Social Work AI Network (SWAN) Webinar (720 registered; 437 attendees)

2025 Faculty Network Organizer & Session Chair, Association for Computing Machinery (ACM) Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO), Ithaca, New York, United States.

2024 Session Chair, International Conference on Inequality & Social Policy in Korea, Korea Inequality Research Lab at Yonsei University, Seoul, Korea. August 2024.

2023 Co-organizer, Pre-Conference workshop on data science at the 2023 Conference of the Society for Social Work and Research (SSWR).

2010 Co-Chair, Catalyzing Development: A New Vision for Aid Workshop, Washington D.C., July 2010. Hosted by the Brookings Institution.

University Service

01/2025–present Affiliate, Rutgers Climate and Energy Institute

01/2025–present Interviewed faculty candidates for the Rutgers Global Health Institute, Center for Climate, Health, and Healthcare

09/2024–present Scholarly community affiliate, Rutgers Artificial Intelligence and Data Science (RAD) Collaboratory

05/2024–present	Course Coordinator for Social Welfare Policy and Services
01/2023–present	Research Advisory Committee, Rutgers School of Social Work
05/2022–09/2022	Organized and hosted monthly data science seminars
03/2022–05/2022	Interviewed faculty candidate for Rutgers Global Health Institute
09/2006–05/2007	Vice President of Academic Affairs (elected), Harvard Kennedy School
09/2002–05/2003	Community Liaison (elected), Washington University in St. Louis, Brown School of Social Work
03/1996–02/1997	Vice President (elected), Ewha Womans University, School of Social Welfare

Honors and Awards

Professional Awards and Honors

2026	Prof. Chin Ok Lee & Ms. Kwanghee Kim Excellence Award Northeast Regional Conference (NRC) Korean-American Scientists and Engineers Association (KSEA)
2025	Honorable Mention, 5th Association for Computing Machinery (ACM) Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'25) Digital Pulse of Development: Constructing Poverty Metrics from Social Media Discourse. (selected from 120+ submissions)
2025	Rutgers Innovation Award: Social Innovation Rutgers University
2020	Outstanding Dissertation Award Society for Social Work and Research (SSWR)
2019	National Science Foundation Research Traineeship Program (NRT) Grant
2018	Graduate Division Summer Grant University of California, Berkeley Graduate Division, 2018, 2016 & 2014
2017	Development Studies Association Travel Funding
2016	Highest Honors in Graduate Research Award Korea Association of International Development Cooperation
1997–2015	Earlier honors: Social Welfare Block Grant Award, University of California, Berkeley (2014–2015); Roy Family Scholarship, Harvard Kennedy School (2006); National Winner of the Influencing State Policy Contest, Council on Social Work Education (2004); Daniel Sandra Scholarship, Washington University in St. Louis (2002); Honorary Award and Scholarship for Community Services, Ewha Womans University (1997).

Fellowships

2017–2019	National Science Foundation (NSF) Innovations at the Nexus of Food, Water, and Energy Systems Program (InFEWS) Fellowship University of California, Berkeley
FA. 2018 & SP. 2017	Doctoral Completion Fellowship Award

2017–2018	Berkeley Connect Fellowship. University of California, Berkeley
2016	Human Rights Center Fellowship Human Rights Center

Professional Experience

2012–2013	Senior Researcher, Korea Institute for Development Strategy (KDS), Seoul, Korea
2009–2011	Senior Policy Analyst, Korea International Cooperation Agency (KOICA), Seongnam, Korea
2007–2008	Consultant, UNICEF Division of Policy and Planning, New York, NY
1998–2004	Earlier positions: Public Relations Officer, The Korean Community Service Center of Greater Washington, Annandale, VA (2002–2004); Youth Department Manager, Jeonghae Bokji, Seoul, Korea (1998–2000); Corporate Social Responsibility Coordinator, Samsung Corporation, Seoul, Korea (1998–1999).

Professional Membership

2026	American Association of Geographers (AAG)
2025	Korean-American Scientists and Engineers Association (KSEA)
2023	Association for Computing Machinery (ACM)
2018	Association for Public Policy Analysis and Management (APPAM)
2018	Society for Social Work and Research (SSWR)
2017	Development Studies Association (DSA)