Chanmin Kim

02-760-0495 Contact 25-2, Sungkyunkwan-ro, Jongno-gu Seoul 03063, Korea chanmin.kim@skku.edu Information Research Bayesian nonparametric methods and Machine learning Interests Causal inference and Causal mechanism Policy Evaluation, Environmental statistics, and behavioral sciences Bayesian methodologies Current SungKyunKwan University, Department of Statistics, Seoul, Korea Position Associate Professor of Statistics (tenured), Sep 2023 - Current Mar 2024 - Current **Director** of Research Institute of Applied Statistics, Assistant Professor of Statistics, Jan 2020 - Aug 2023 EDUCATION / Harvard University, Department of Biostatistics, Boston, MA Training Research Associate & Postdoctoral Research Fellow July 2014 - Aug 2017 Project: Developing Bayesian causal inference methods for evaluating air pollution regulatory policies. Mentor: Corwin M. Zigler, Ph.D. University of Florida, Gainesville, FL Ph.D., Statistics Aug 2013 Thesis: Bayesian methods for inference on the causal effects of mediation. Advisor: Michael J. Daniels, Sc.D. Columbia University in the City of New York, New York, NY M.A., Statistics May 2008 Sogang University, Seoul, Korea B.B.A., B.A., Business and History (Double Major) Feb 2006 Magna Cum Laude the second highest GPA in the department. Research and Sep 2017 - Dec 2019 Assistant Professor Professional Department of Biostatistics, Boston University, Boston, MA EXPERIENCE Jan 2020 - Jun 2023 Adjunct Assistant Professor Department of Biostatistics, Boston University, Boston, MA Advisory Committee Jul 2023 - Oct 2023 Korea Internet & Security Agency (KISA), Naju, Korea Nov 2020 - Feb 2021 Advisory Committee Hyundai Motor Group, Seoul, Korea Postdoctoral Research Fellow Aug 2013 - Jul 2014 Department of Integrative Biology, The University of Texas, Austin - Developed Bayesian nonparametric methods for causal mediation in various settings (single, multiple, or longitudinal mediators). Mentor: Michael J. Daniels, Sc.D. Research Assistant Jan 2010 - Jul 2013 Department of Statistics, University of Florida

- Causal mediation analysis in the TOURS project (weight management trial) and

the Rural LITE project.

Supervisor: Michael J. Daniels, Sc.D.

Research Assistant

Applied Statistics Center, Columbia University

Supervisor: Andrew Gelman, Ph.D.

Employee, Samsung Electronics, South Korea

Jan 2006 - May 2006

Jan 2007 - Dec 2007

- Worked at the HR headquarters of the Tele-Communication Business Division which is in charge of Samsung's cell phone business.

Internship, Bearing Point Consulting formerly KPMG Korea Jul 2004 - Aug 2004 - As a member of PMO, evaluated daily outputs for a project to construct a new banking system for Korean Exchange Bank (KBE). Worked with 600 IT experts.

AWARDS Honors

SKKU Research Excellence (sin-poom),

2024

SKKU Teaching Excellence (myo-poom/sin-poom/sin-poom), 2022, 2023, 2024

Mitchell Prize, honorable mention (2nd place), ISBA

Jun 2020

- The Mitchell Prize is awarded in recognition of an "outstanding paper" that describes how a Bayesian analysis has solved an important applied problem. The Prize is jointly sponsored by the Section on Bayesian Statistical Science (SBSS) of the ASA, the International Society for Bayesian Analysis (ISBA), and the Mitchell Prize Founders' Committee.

ASA Biometrics Section Paper Award

Aug 2017

- Invited to present the paper at the 2017 JSM

Winner (1st place), 2013 IASC data analysis competition

Aug 2013

- Invited to present the result at the joint meeting of the IASC Satellite Conference for the 59th ISI WSC and the 8th Conference of the Asian regional section of the IASC, Seoul, Korea (22-23 August 2013)

Honorable Mention, NSF research day poster competition, UF

Oct 2011

3rd Place, Human Consulting Group case competition,

May 2003

NEMO Partners, South Korea

Travel Awards

Sackler Travel Award (granted by NSF)

Mar 2015

for the Sackler Colloquium Drawing Causal Inference from Big Data, D.C.

Graduate Student Council (GSC) at UF

May 2013

for 2013 Atlantic Causal Inference Conference, Boston, MA

College of Liberal Arts and Sciences (CLAS) at UF

May 2013

for 2013 Atlantic Causal Inference Conference, Boston, MA

Boyd Harshbarger Travel Award (granted by NSF)

Jun 2012

for SRCOS 2012 Summer Research Conference, GA

College of Liberal Arts and Sciences (CLAS) at UF

May 2012

for 2012 Atlantic Causal Inference Conference, Baltimore, MD

Centre de recherches mathématiques (CRM) at University of Montreal May 2011 for Workshop on Causal Inference in Health Research, Canada

Graduate Student Council (GSC) at UF for Workshop on Causal Inference in Health Research, Canada May 2011

REFEREED JOURNAL PUBLICATIONS

Publication in Statistical Methodology († denotes student mentee)

- Yoo, Y. † , Kim, C., bartcs: Bayesian Additive Regression Trees for Confounder Selection in R, to appear in R journal.
- Park, J.[†], **Kim**, C., Bayesian MINBM: Addressing Multiple Inflated Values in Discrete Data, to appear in *Communications for Statistical Applications and Methods*, 2025+
- **Kim, C.**, Zigler, C., Bayesian nonparametric trees for principal causal effects, to appear in *Biometrics*, 81(1), 2025.
- Kim, C., Li, Y., Xu, T., Liao, Z., Bayesian nonparametric model for heterogeneous treatment effects with zero-inflated data, *Statistics in Medicine*, 43(30), 5968-5982, 2024.
- Seo, J.[†], **Kim, C.**, Utilizing local likelihood in regression discontinuity design: Investigating the impact of ART eligibility on retention in clinical HIV care in South Africa, *Statistics in Medicine*, 43(8), 2024.
- Lee, K-J., Kim, C., Yoo, J., Lee, K., Multivariate probit linear mixed models for multivariate longitudinal binary data, *Statistics in Medicine*, 43(8), 2024.
- Lee, S.[†], **Kim**, C., Dirichlet Process Mixture Models using Matrix-Generalized Halft Distribution, Stat, 12(1), 1-13, 2023.
- Kim, C., Tec, M., Zigler, C., Bayesian Nonparametric Adjustment of Confounding, *Biometrics*, 79(4), 3252-3265, 2023.
- Koo, D., Kim, C., Lee, K., A Bayesian Method for Multinomial Probit Model, *The Journal of the Korean Statistical Society*, 52, 265-281, 2023.
- Kwon, N.[†], **Kim, C.**, Causal Effect of Urban Parks on Children's Happiness, *The Korean Journal of Applied Statistics*, 36(1), 63-83, 2023.
- Kim, C., Bayesian Additive Regression Trees in Spatial Data Analysis with Sparse Observations, *Journal of Statistical Computation and Simulation*, 92(15), 3275-3300, 2022.
- Park, S.[†], **Kim**, **C.** Comparison of Tree-based Ensemble Models, *Communications* for Statistical Applications and Methods, 29(5), 1-29, 2022.
- Liu, X., Kim, C., Han, Z., Lim, P., Roychoudhury, S., Fava, M., Doros, G., Assessing treatment benefit in the presence of placebo response using the sequential parallel comparison design, *Statistics in Medicine*, 41(12), 2166-2190, 2022.
- Lee, K.J., **Kim, C.**, Chen, R.B., Lee, K., Robust Probit Linear Mixed Models for Longitudinal Binary Data, *Biometrical Journal*, 64(7), 1307-1324, 2022.

- Kim, C., Lin, X., Nelson, K., Measuring Rater Bias in Diagnostic Tests with Ordinal Ratings, *Statistics in Medicine*, 40(17), 4014-4033, 2021.
- Kim, C., Henneman, L., Choirat, C. Zigler, C. M., Health Effects of Power Plant Emissions through Ambient Air Quality, elected as a top cited paper in Wiley 2020-2021, Journal of the Royal Statistical Society: Series A,183(4), 1677-1703, 2020.
- Kim, C., Daniels, M. J., Hogan, J. W., Choirat, C., Zigler, C. M. Bayesian Methods for Multiple Mediators: Relating Principal Stratification and Causal Mediation in the Analysis of Power Plant Emission Controls, awarded ASA 2017 Biometrics section travel award; and awarded an honorable mention for the Mitchell Prize 2019, ISBA, The Annals of Applied Statistics, 13(3), 1927-1956, 2019.
- Kim, C., Deviance Information Criteria for Mixtures of Distributions, *Communications in Statistics Simulation and Computation*, 50(10), 2935-2948, 2021.
- Liu, Y., Kim, C., Wu, A. D., Gustafson, P., Zumbo, B. D. Investigating the Performance of Propensity Score Approaches for Differential Item Functioning Analysis, *Journal of Modern Applied Statistical Methods*, 18(1), 2-26, 2019.
- Kim, C., Daniels, M. J., Li, Y., Milbury, K., Cohen, L., A Bayesian Semiparametric Latent Variable Approach to Causal Mediation, *Statistics in Medicine*, 37(7), 1149-1161, 2018.
- Kim, C., Daniels, M.J., Marcus, B., Roy, J., A framework for Bayesian nonparametric inference for causal effects of mediation, *Biometrics*, 73(2), 401-409, 2017.
- Zigler, C. M., Kim, C., Choirat, C. Hansen, J. B., Wang, Y., Hund, L., Samet, J., King, G., Dominici, F., Causal Inference Methods for Estimating Long-Term Health Effects of Air Quality Regulations, *Health Effects Institute Research Report*, 187, 5-49, 2016 (peer-reviewed).
- Daniels, M. J., Roy, J., **Kim, C.**, Hogan, J. W., Perri, M., Bayesian Inference for the Causal Effects of Mediation, *Biometrics*, 68(4), 1028-1036, 2012.

Collaborative Publications

- Jang et al., Menopausal Stage Transitions and their Associations with Overall and Individual Sleep Quality in Middle-aged Korean Women, *Journal of Affective Disorders*, 368(1), 82-89, 2025.
- Park et al., Overactive bladder and cognitive impairment in middle-aged women: a cross-sectional study, *Maturitas*, 187, 108042, 2024.
- Choi et al., Early-onset vasomotor symptoms and the development of depressive symptoms among premenopausal women, *Journal of Affective Disorders*, 354(1), 376-384, 2024.
- Cheong et al., Human papillomavirus infection and cardiovascular mortality: a cohort study, *European Heart Journal*, 45(12), 1072-1082, 2024.
- Kim, Y. et al., Serum 25-hydroxyvitamin D levels and the risk of early-onset colorectal cancer, *Gastroenterology*, 165(4) 920-931,2023.

Nguyen, D., Levy, J., **Kim, C.**, Lane, K., Simon, M., Hart, J., Whitsel, E., VoPham, T., Malwitz, A., Pters, J., Characterizing temporal trends in populations exposed to aircraft noise around U.S. airports: 1995-2015, to appear in *Journal Of Exposure Science And Environmental Epidemiology*, 2023+.

Cho, Y., Chang, Y., Ryu, S., **Kim, C.**, Wild, S., Byrne, C., History of gestational diabetes and incident nonalcoholic fatty liver disease: The Kangbuk Samsung Health Study, *American Journal of Gastroenterology*, 118(11) 1980-1988, 2023.

Peer, K., Adams W. G., Legler, A., Sandel, M., Levy, J., Boynton-Jarrett, R., **Kim**, **C.**, Leibler, J. H., Fabian, M. P., Developing and evaluating a pediatric asthma severity computable phenotype derived from electronic health records, *The Journal of Allergy and Clinical Immunology*, 147(6), 2162-2170, 2021.

Nguyen, M., Feeney, T., **Kim, C.**, Drake, T., Mitchell, S., Bednarczyk, M., Sanchez, S., Patient-Level Factors Influencing Palliative Care Consultation at a Safety-Net Urban Hospital, *American Journal of Hospice and Palliative Medicine*, 38(11), 1299-1307, 2021.

Liu, Y., Beliveau, A., Besche, H., Wu, A., Zhang, X., Stefan, M., Gutlerner, J., Kim, C., Bayesian Mixed Effects Model and Data Visualization for Understanding Item Response Time and Response Order in Open Online Assessment, *Frontiers in Education, section Assessment, Testing and Applied Measurement*, 5, 274, 2021.

Nguyen, M., Feeney, T., **Kim, C.**, Drake, T., Mitchell, S., Bednarczyk, M., Sanchez, S., Differential Utilization of Palliative Care Consultation between Medical and Surgical Services, *American Journal of Hospice and Palliative Medicine*, 37(4), 250-257, 2020.

Mahalingaiah, S., Lane, K.J., **Kim, C.**, Cheng, J., Hart, J., Impacts of Air Pollution on Gynecologic Disease: Infertility, Menstrual Irregularity, Uterine Fibroids, and Endometriosis: a Systematic Review and Commentary, *Current Epidemiology Reports*, 5(3), 197-204, 2018.

Zhang, Z., Zheng, C., **Kim, C.**, Van Poucke, S., Lin, S., Lan, P., Causal Mediation Analysis in the Context of Clinical Research, *Annals of Translational Medicine*, 4(21), 1-20, 2016.

Perri, M., Limacher, M., von Castel-Roberts, K., Daniels, M., Durning, P., Janicke, D., Bobroff, L., Radcliff, T., Milsom, V., **Kim, C.**, Martin, A., Comparative Effectiveness of Three Doses of Weight Loss Counseling: Two-Year Findings from the Rural LITE Trial, *Obesity*, 22, 2293-2300, 2014.

Manuscripts Submitted or Under Revision († denotes student mentee)

Kim, C., Kim, H.[†], Bayesian Decision Trees for Confounder Selection in Mediation Analysis, submitted (*NeurIPS 2025*).

Song, Y., Maurizio, F., **Kim, C.**, Robert, Y., Gheorghe, D., Estimating Causal Treatment Effects in the Sequential Parallel Comparison Design (SPCD), under review after minor revision (*Statistics in Medicine*).

Bae, Y.[†], **Kim, C.**, Wang, F., Sun, Q., Lee, K., Bayesian Variable Selection for High-Dimensional Mediation Analysis: Application to Metabolomics Data in Epidemiological Studies, under revision (*Statistics in Medicine*).

Peer, K., Adams W. G., Legler, A., Sandel, M., Levy, J., Boynton-Jarrett, R., **Kim**, C., Leibler, J. H., Fabian, M. P., Beyond a reductionist approach to residential mobility definitions in the health literature: opportunities and challenges using electronic health record address data, submitted.

Kim, C., Zigler, C. M., Daniels, M. J., Choirat, C., Roy, J. A., Bayesian Longitudinal Causal Inference in the Analysis of the Public Health Impact of Pollutant Emissions [arXiv].

Cummiskey, K., **Kim, C.**, Choirat, C., Schwartz, J., Zigler, C. A Source-Oriented Approach to Coal Combustion PM_{2.5} Health Effects [arXiv], under revision.

Papers in Preparation

Kim, C., Hogan, J. W., Marcus, B., Daniels, M. J., A Framework for Causal Inference for Multiple Mediators, In preparation (draft available upon request).

Kim, C., Nelson, K., Enhanced Method for Measuring Rater Bias in Diagnostic Tests with Ordinal Ratings, In preparation.

Liu, X., Han, Z., **Kim, C.**, Doros, G., Assessing treatment effect for the sequential parallel comparison design via stratum-specific estimands when a non-responder criterion is not present, In preparation.

Package / Software

BNPMediation, an R package. Implements Bayesian nonparametric methods to estimate the causal effects of mediation. Available in CRAN.

BayesODT, an R package. Implements Bayesian hierarchical model to measure rater bias for ordinal classification processes. Available in lit777.github.io.

Presentations Invited Talks

The 7th Pacific Causal Inference Conference (PCIC),	$\mathrm{Jul}\ 2025$
EAC-ISBA Conference 2025,	Jul 2025
17th International Conference of the ERCIM WG on CMStatistics,	Dec 2024
ISBA World Meeting 2024, Venice, Italy (cancelled due to illness),	Jul 2024
The Institute for Mathematical Statistics – Asia-Pacific Rim Meeting(II 2024),	MS-APRM Jan 2024
16th International Conference of the ERCIM WG on CMStatistics,	Dec 2023
IASC-LARS Data Science Conference in Chile,	Nov 2023
Department of Statistics, Seoul National University,	Oct 2023

25th International Conference on Computational Statistics (COMPSTATE 2023	2023), Aug			
6th International Conference on Econometrics and Statistics (EcoSta),	Jul 2023			
15th International Conference of the ERCIM WG on CMStatistics,	Dec 2022			
Invited Seminar on Causality, Data Science PLUS,	Nov 2022			
Fall Conference, The Korean Data & Information Science Society,	Nov 2022			
Data Science, Statistics & Visualisation (DSSV) 2022, IASC-ISI, Taiwan	Jun 2022			
Invited Section for Bayesian Statistics, The Korean Statistical Society	Jun 2022			
Department of Statistics, Yonsei University, South Korea	Dec 2021			
Department of Statistics, Korea University, South Korea	Nov 2021			
Seminar on Causal Mediation Analysis, National Evidence-based Healthca Agency,	re Collaborating Aug 2021			
10th Bernoulli-IMS World Congress in Probability and Statistics, Sec (Virtual),	oul, Korea Jul 2021			
63rd ISI World Statistics Congress, Hague (Virtual),	Jul 2021			
Seminar on Social Science Methods, Center of Politics and Communication, Seoul National University, Jun 2021				
4th International Conference on Econometrics and Statistics (EcoSta 20 Kong (Virtual),	021), Hong Jun 2021			
Working Group on Causal Inference and Machine Learning, Harvard University, May 2021				
Spring Conference, The Korean Data & Information Science Society,	May 2021			
Invited Section for Bayesian Statistics, The Korean Statistical Society,	Dec 2020			
Department of Statistics, SungKyunKwan University, South Korea	Oct 2020			
Department of Statistics, Ewha University, South Korea	Aug 2020			
4th International Conference on Econometrics and Statistics, Seoul, Kore 2020 (postponed)	ea, Jul			
Bayesian Causal Inference Workshop, Ohio State University, OH (Cancel 2019	lled) Jun			
Atlantic Causal Inference Conference, McGill University, Canada	May 2019			
Institute for Computational and Experimental Research in Mathemati University, RI	cs, Brown Jan 2019			

	Graduate School of Future Strategy, KAIST, Daejeon, Korea	Aug 2018		
	2018 Joint Statistical Meeting, Vancouver, Canada	Aug 2018		
	The 3rd ISBA-EAC Conference , Seoul, Korea	Jul 2018		
	2018 ICSA China Conference with the Focus on Data Science, Qingdao, Schina	hangdong, Jul 2018		
	2018 IISA International Conference on Statistics, Gainesville, FL	May 2018		
	Statistics and Probability Seminar Series, Boston University, MA	Apr 2018		
	Biostatistics Student Association (BSA) Seminar, Boston University, MA	Nov 2017		
	Global Health Research Seminar Series, Boston University, MA	Oct 2017		
	Environmental Statistics Seminar, Harvard University, MA	May 2017		
	The 31st New England Statistics Symposium, Univ. of Connecticut, CT $$	Apr 2017		
	Department of Biostatistics, Boston University, MA	Feb 2017		
	Department of Biostatistics and Bioinformatics, Duke University, NC	Jan 2017		
	Department of Biostatistics, Indiana University, Indianapolis, IN	Jan 2017		
	Div. of Sleep and Circadian Disorders, Brigham and Women's Hospital	Nov 2016		
	P01 Retreat, Harvard University	Oct 2016		
	Department of Statistics, SungKyunKwan University, South Korea	Apr 2016		
	Environmental Statistics Seminar at Harvard Biostatistics	Sep 2015		
	2015 Atlantic Causal Inference Conference, Philadelphia, PA	May 2015		
	Department of Biostatistics, Harvard School of Public Health	Dec 2013		
	Joint meeting of the IASC satellite conference for the 59th ISI WSC and the 8th conference of the ARS of the IASC, South Korea	Aug 2013		
Topic-Contributed Talks				
	2017 Joint Statistical Meeting, Baltimore, MD (Missed) - Biometrics Section Award Presentation: Bayesian Methods for Multiple II Variables: Principal Stratification and Causal Mediation Analysis	Aug 2017 Intermediate		
	2016 Joint Statistical Meeting, Chicago, IL	Aug 2016		
	2014 Joint Statistical Meeting, Boston, MA	Aug 2014		

$10\mathrm{th}$ World Congress in Probability and Statistics, Seoul (Virtu	al) Jul 2021
2017 ENAR Meeting, DC	Mar 2017
2016 ENAR Meeting, Austin, TX	Mar 2016
P01 retreat at Harvard Biostatistics	Oct 2015
Bayesian Causal Inference Group Seminar at Harvard Biostatist	tics Jun 2015
Bayesian Causal Inference Group Seminar at Harvard Biostatist	tics Jan 2015
Bayesian Causal Inference Group Seminar at Harvard Biostatist	tics Sep 2014
Acid Rain Program Group Seminar at Harvard	Sep 2014, Feb 2015
2015 ENAR Meeting, Miami, FL	Mar 2015
2014 ENAR Meeting, Baltimore, MD	Mar 2014
2013 Joint Statistical Meeting, Montreal, Canada	Aug 2013
Poster Presentations	
2015 International Health Policy Statistics Conference, Provider	nce, RI Oct 2015
2015 Atlantic Causal Inference Conference, Philadelphia, PA	May 2015
2013 Atlantic Causal Inference Conference, Boston, MA	May 2013
2012 SRCOS Summer Research Conference, GA	Jun 2012
2012 Atlantic Causal Inference Conference, Baltimore, MD	May 2012
Workshop on Causal Inference and Graphical Models, Winter Workshop 2012, University of Florida	Jan 2012
NSF Research Day, University of Florida	Oct 2011
Workshop on Causal Inference in Health Research, CRM, University of Montreal, Canada	May 2011

Professional Service Editorial Board

Co-Editor (CSAM, 2025 -) / Associate Editor (CSAM, 2023 - 2025)

Reviewer (Publons)

Journal of American Statistical Association (theory and methods; applications and case studies), Biometrics, Statistics in Medicine, Bayesian Analysis, Journal of Royal Statistical Society: Series B, Journal of Royal Statistical Society: Series C, Journal of Causal Inference, Statistica Sinica, Annals of Applied Statistics, Biostatistics, Statistical Science, Epidemiologic Methods, BMJ Open, BMC Medical Research Methodology, Computational Statistics and Data Analysis, The Canadian Journal of Statistics, Journal of Agricultural Biological and Environmental Statistics, BMC Public Health,

WIREs Computational Statistics, The International Journal of Biostatistics, Statistical Methods and Applications, The Korean Journal of Applied Statistics, Scientific Reports, MRC grant proposal, HEI grant proposal, Structural Equation Modeling: A Multidisciplinary Journal, Statistical Methods in Medical Research, Journal of Statistical Computation and Simulation, Statistical Science

PROFESSIONAL SOCIETY

Elected Member of ENAR Council for Emerging and New Statisticians. 2014 - 2016 Members of ENAR, ASA, ISBA

Conference Organization

Session Organizer: Invited Session at EcoSta (2025), Invited Session at CMStatistics (2021, 2022), Invited Session at KDISS (2022), Invited Session at 2021 Fall Conference of KSS, Invited Session at ENAR (2019), Invited Session at JSM (2018), Invited Session at ACIC (2018), Topic-contributed sessions at JSM (2016, 2017)

Session Chair: Invited Session at EcoSta (2025), CMStatistics (2011, 2022), KDISS (2022), KSS(2021), ENAR (2015), JSM (2016), Invited Session at ENAR (2020)

Others: Judge of 2014 ENAR spring meeting RAB poster competition.

DEPARTMENTAL SERVICE

PhD Students

Youngho Bae (SKKU), Winter 2025

Awarded the best poster award at 3rd World Conference on Data Science and Statistics, Netherlands

MS STUDENTS

Youngho Bae (SKKU), Winter 2021

Awarded a poster award (2nd prize) at 2021 Spring Conference of KDISS.

Doyoung Kim (SKKU), Spring 2022

Awarded the best poster award (1st prize) at 2021 Spring Conference of KDISS and an honorable mention for the poster award at 2021 Spring Conference of KSS.

Currently, Ph.D. student in the Dept. of Statistics at Florida State Univ.

Sangho Park (SKKU), Winter 2021

Currently at Samsung Medical Center.

Yeonghoon Yoo (SKKU), Spring 2022

Hyunwoo Lim (SKKU), Spring 2022

Currently at Seoul Guarantee Insurance Company.

Nayeon Kwon (SKKU), Winter 2022

Awarded a poster award (2nd prize) at 2022 Winter Conference of KDISS.

Sanghyun Lee (SKKU), Winter 2022

Currently working for the Korean government.

Jaehyun Seo (SKKU), Winter 2022

Awarded an honorable mention for the poster award at 2022 Spring Conference of KSS.

Currently at Neople

Jaeho Yoon (SKKU), Spring 2023

Formally, Ph.D. student at Univ. of Georgia.

Namtaek Kwon (SKKU), Spring 2023

Currently, at Netmarble.

Yeseul Sung (SKKU), Winter 2023

Eunju Sim (SKKU), Winter 2023

Currently at DB Insurance.

Juwon Jung (SKKU), Winter 2023

Currently, a PhD student at Korea University.

Heechul Jeong (SKKU), expected Spring 2024

Currently at SBI Savings Bank.

Jin Lee (SKKU), Winter 2024

Sun Min Yi (SKKU), Winter 2024

Jisung Park (SKKU), Winter 2024

Jungeun Lee (SKKU), Spring 2025

Seokho Kim (SKKU), expected Winter 2025

Awarded the paper award (3rd prize) at 2025 Summer Conference of KSS.

Hyunwoo Kim (SKKU), expected Winter 2025

Joohyung Son (SKKU), expected Winter 2025

Hyunbin Kim (SKKU), expected Spring 2026

Taesoo Kim (SKKU), expected Winter 2025

Yerim Park (SKKU), expected Spring 2026

I-Heon Jung (SKKU), expected Spring 2026

Doun Jeon (SKKU), expected Spring 2026

PhD Committees

Kevin Cummiskey (Harvard Biostatistics, 2018). Advisor: Corwin M. Zigler

Aya Mitani (Boston Univ. Biostatistics, 2019). Advisor: Kerrie Nelson

Komal Basra (Boston Univ. Environmental Health, 2021). Advisor: Patricia Fabian Daniel Nguyen (Boston Univ. Environmental Health, 2022). Advisor: Junenette Peters

Xiaoyan Liu (Boston Univ. Biostatistics, 2022). Advisor: Gheorghe Doros

MS Committees

Amelia Williams (Boston University Epidemiology, 2018). Advisor: Kimberly Shea

Qual Examiner

Chloe Kim (Boston University Environmental Health). Advisor: Michael McClean Komal Basra (Boston University Environmental Health, 2019). Advisor: Patricia Fabian

Other Services

Co-Organizer, Epidemiology+Biostatistics Joint Seminar Series, Boston University 2018

Co-Organizer, Seminar Series, Department of Biostatistics, Boston University 2017 - 2019

Co-Chair, Course Development Task Force (Topics in Causal Inference), Department of Biostatistics, Boston University

2018 - 2019

Convener, PhD Program Review Committee, Department of Biostatistics, Boston University 2018

Faculty Search Committee, Department of Biostatistics, Boston University 2018 - 2019

Co-Organizer, Causal Inference Seminar Series, Departments of Biostatistics + Mathematics and Statistics, Boston University 2018-

Biostatistics Program Advisory Committee (BPAC), Departments of Biostatistics, Boston University 2019-

MA/PhD Admission Committee, Departments of Biostatistics, Boston University 2019-

TEACHING EXPERIENCE

Instructor

STA3010 - Intro. to Nonparametric Statistics (Undergrad) Fall 2024, Fall 2022 Department of Statistics, SungKyunKwan University STA5041 - Topics in Bayesian Methods (Grad) Department of Statistics, SungKyunKwan University

Fall 2022

Summer 2019

STA3034 - Massive Data Analysis and Visualization (Undergrad) Spring 2021, Fall

Department of Statistics, SungKyunKwan University

STA2016 - Intro. to Statistical Programming (Undergrad) Fall 2020, Fall 2021, Spring 2022, Spring 2023, Spring 2024, Fall 2024, Spring 2025 Department of Statistics, SungKyunKwan University

STA5004 - Advanced Categorical Data Analysis (Grad) Fall 2020, Fall 2021 Department of Statistics, SungKyunKwan University

STA5030 - Bayesian Statistics (Grad) Spring 2020, Spring 2021, Fall 2023 Department of Statistics, SungKyunKwan University

STA5039 - Causal Inference (Grad) Spring 2022, Spring 2023, Spring 2024 Department of Statistics, SungKyunKwan University

BS730 - Introduction to Statistical Computing Spring 2018, Spring 2019 Teaching core statistical concepts and computing skills with R Department of Biostatistics, Boston University

BS901 - Directed Studies in Biostatistics Analyzing datasets using nonparametric methods Department of Biostatistics, Boston University

POSTDOC MENTOR Summer 2017

6 weeks mentoring of summer project participants (Pipelines into Biostatistics) Department of Biostatistics, Harvard T. H. Chan School of Public Health

POSTDOC MENTOR Summer 2016 6 weeks mentoring of summer project participants (Pipelines into Biostatistics)

Department of Biostatistics, Harvard T. H. Chan School of Public Health

Guest Lecturer Fall 2018, Spring 2019, Fall 2019 Causal Mediation Analysis (3 hours) in BS852 (Bayesian Methodology in Biostatistics) Department of Biostatistics, Boston University School of Public Health

Guest Lecturer Fall 2014 Causal Mediation Analysis (2 hours) in BIO 249 (Bayesian Methodology in Biostatistics) Department of Biostatistics, Harvard T. H. Chan School of Public Health

Guest Lecturer Spring, Fall 2013

2 hour BUGS tutorial in the course SSC 384.7 (spring) 1 hour BUGS tutoral in the course SSC 383C (Fall)

Division of Statistics and Scientific Computation, The University of Texas at Austin

Lab-Instructor Fall 2008, Spring 2009 STA 2023 - Introduction to Statistics

Teaching lab sessions of the course 3 hours a week

Evaluation: 4.31/5 (Spring 2009), 4.38/5, 4.26/5, 4.35/5 (Fall 2008)

Department of Statistics, University of Florida

TEACHING ASSISTANT AT UF

Spring, Fall 2009

STA 3032 - Engineering Statistics

STA 4210 - Regression Analysis

STA 4183 - Theory of Interest

ESI 6546 - Stochastic Modeling and Analysis (Grader)

TEACHING ASSISTANT AT COLUMBIA UNIVERSITY

Spring 2007

W1211 - Introduction to Statistics (with Calculus)

Grant Funding Active

NRF mid-career research (PI: Chanmin Kim)

Mar 2025 - Feb 2029

Development of integrated data science methodologies based on disease stage for

medical big data analysis Role: Principal investigator

555,423,000 won

NRF basic research lab (PI: Keunbaik Lee)

Aug 2024 - Apr 2027

Development of integrated data science methodologies based on disease stage for medical big data analysis

Role: Co-investigator

1,375,000,000 won

Completed

NRF basic research(PI: Chanmin Kim)

Jun 2022 - Feb 2025

Bayesian non-parametric method for longitudinal causal mechanism analysis.

Role: Principal Investigator

210,000,000 won

NRF basic research (PI: Chanmin Kim)

Jun 2020 - Feb 2023

Bayesian non-parametric methods for estimating causal effect heterogeneity.

Role: Principal Investigator

170,000,000 won

Sungkyun Research Fund (PI: Chanmin Kim)

Dec 2021 - Dec 2022

Heterogeneous Mediation Analysis for High-dimensional Confounders and Mediators. Role: Principal Investigator

13.000.000 won

US-EPA (PI: Corwin Zigler)

Sep 2016 - Aug 2020

Air Climate and Energy Center: Regional Air Pollution Mixtures: The Past and Future Impacts of Emission Controls and Climate Change on AirQuality and Health, Project 4: A Causal Inference Framework to Support Policy Decisions by Evaluating the Effectiveness of Past Air Pollution Control Strategies for the Entire United States.

Role: **PI on subcontract**, subcontract from Harvard University

NIH (PI: Kerrie Nelson)

Feb 2018 - Aug 2022

Improving Accuracy and Reliability in Cancer Screening Tests

Role: Biostatistician

NIH (PI: David Sherr)

Sep 2012 - Aug 2020

Superfund Research Program at Boston University

Role: **Biostatistician**

NIH (PI: Lauren Wise and Elizabeth Hatch)

Jan 2019 - Oct 2023

A Preconception Cohort Study of Environmental Chemicals, Fertility, and Miscarriage

Role: Biostatistician

NIH (PI: Debbie Cheng)

Sep 2016 - Aug 2021

Biostatistics and Data Management (BDM) Core - URBAN ARCH Consortium

Role: Biostatistician

NIH (PI: Jason Roy)

Sep 2014 - Aug 2018

Non-Parametric Bayesian Methods of Causal Inference.

Role: PI on subcontract, subcontract from University of Pennsylvania

NIH (PI: Corwin Zigler)

Sep 2015 - Aug 2020

Causal Inference with Interference for Evaluating Air Quality Policies

Role: Investigator

NIH (PI: Kerrie Nelson)

Jan 2014 - Dec 2019

Modeling Agreement in Cancer Diagnostic Tests

Role: Biostatistician

Project

ACTIVE

Doosan Enerbility

Apr 2024 - Dec 2024

Bayesian causal methods development for Doosan Enerbility's wind power business

Role: Project Manager

Computing

STATISTICAL PROGRAMS (PACKAGES)

R, SAS, Stan, BUGS (WinBUGS, OpenBUGS), MATLAB

- SAS Certified Base Programmer for SAS 9 Credential

May 2012

- SAS Certified Advanced Programmer for SAS 9 Credential

Sep 2012

Programming Languages

C++, Python

OPERATING SYSTEM

Unix, Linux, Windows

MISCELLANEOUS Exam P pass, Society of Actuaries

Mar 2011