Woojung Bae Curriculum Vitae

Contact Information

Department of Statistics, University of Florida
117D Griffin-Floyd Hall, Gainesville, FL 32611   Email: woojung.bae@ufl.edu

Education

Aug 2018 – Present	Ph.D., Statistics, University of Florida
	Advisor: Dr. Michael J. Daniels
Mar 2016 – Feb 2018	M.A., Statistics, Yonsei University
	Thesis: R Package afttest for Checking Semiparametric Accelerated Failure Time Models
	Advisor: Dr. Sangwook Kang
Mar 2009 – Feb 2016	B.S., Mathematics and B.E., Economics (Dual Degree), Kyung Hee University

Research Experience

Graduate Intern

May 2022 – Aug 2022	Regeneron Pharmaceuticals Inc.
	Advisor: Dr. Chenguang Wang

Research Assistant

May 2020 – Present	Department of Statistics, University of Florida
	Advisor: Dr. Michael Daniels
Sep 2016 – Feb 2018	Department of Applied Statistics, Yonsei University
	Advisor: Dr. Sangwook Kang

Teaching Experience

Teaching Assistant
Department of Statistics, University of Florida

STA 5328	Fundamentals of Statistics
STA 5325	Fundamentals of Probability
STA 4322	Introduction to Statistics Theory
STA 4321	Introduction to Probability
STA 3032	Engineering Statistics
STA 3024	Introduction to Statistics 2
STA 2023	Introduction to Statistics 1

Department of Applied Statistics, Yonsei University

STA 3123	Sampling Theory
STA 3108	Survival Analysis
STA 1001	Introduction to Statistics

Research Interests

Bayesian Methodology, Hierarchical Modelling, Casual Inference, Casual Mediation Analysis, Longitudinal Data Models, Biostatistics, Survival Analysis, Incomplete Data Models, Building a Software

Skills

Languages & Software   R, Rcpp, RcppArmadillo, rstan, SAS, MATLAB, LaTeX, GitHub

Papers

† : Co-first author

Working Papers

5. **Bae, W.**, Daniels, M, and Wang, CG. Missing data introduced by applying hypothetical strategies: are they really missing?
4. **Bae, W.**, Daniels, M., and Hogan, J. Semiparametric Bayesian inference for causal mediation in cluster randomized trials.
3. **Bae, W.**, Choi, D., Yan, J., and Kang, S. `afttest:` model diagnostics for semiparametric accelerated failure time models in R.

Preprint

2. Choi, D.†, **Bae, W.**†, Yan, J., and Kang, S. A General Goodness-of-fit Tests for Semiparametric Accelerated Failure Time Models, revision submitted. `preprint`
1. **Bae, W.**, Daniels, M., and Perri, M. A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, revision submitted. `preprint`

Software

R package

`afttest`   Model diagnostics for accelerated failure time models (`CRAN`, `GitHub`)

Presentation

† : Virtually

Invited Talk

Oct 2023	Missing data introduced by applying hypothetical strategies: are they really missing?, *Regeneron*, Tarrytown, NY.†
Jun 2023	A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *International Chinese Statistical Association China Conference*, Chengdu, Sichuan, China.†
May 2023	Missing data introduced by applying hypothetical strategies: are they really missing?, *Society for Clinical Trials*, Baltimore, MD.
Dec 2022	A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *Yonsei University*, Seoul, Korea.
Sep 2022	Missing data introduced by applying hypothetical strategies: are they really missing?, *ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop*, Washington, D.C.

Topic Contributed Talk

Aug 2023	Missing data introduced by applying hypothetical strategies: are they really missing?, *Joint Statistical Meeting*, Toronto, Canada.

Contributed Talk

Mar 2024	A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *Eastern North American Region*, Baltimore, MD.
Mar 2023	Semiparametric Bayesian inference for causal mediation in cluster randomized trials, *Eastern North American Region*, Nashville, TN.

Aug 2022	Causal mediation in weight management trials using Bayesian nonparametrics, *Joint Statistical Meeting*, Washington, D.C.
Mar 2022	A more flexible Bayesian nonparametric approach to causal mediation, *Eastern North American Region*, Houston, TX.
Dec 2021	A more flexible Bayesian nonparametric approach to causal mediation, *US-KOREA Conference*, Los Angeles, CA.
Aug 2021	A more flexible Bayesian nonparametric approach to causal mediation, *Joint Statistical Meeting*, Seattle, WA.[†]
Jul 2021	A more flexible Bayesian nonparametric approach to causal mediation, *International Society for Bayesian Analysis*, University of Connecticut, Storrs, CT.[†]
Nov 2017	R package afttest for checking semiparametric accelerated failure time models afttest, *Korean Statistical Society Fall Meeting*, Seoul, Korea.

Contributed Poster

Oct 2022	Missing data introduced by applying hypothetical strategies: are they really missing?, *Southern Regional Council on Statistics*, Jekyll Island, GA.
Aug 2022	Missing data introduced by applying hypothetical strategies: are they really missing?, *Statistics in Pharmaceuticals conference*, University of Connecticut, Storrs, CT.[†]
Jun 2022	Causal mediation in weight management trials using Bayesian nonparametrics, *International Society for Bayesian Analysis*, Montreal, Canada.
Oct 2021	A more flexible Bayesian nonparametric approach to causal mediation, *Southern Regional Council on Statistics*, Jekyll Island, GA.
Aug 2020	R package afttest for checking semiparametric accelerated failure time models afttest with an Induced Smoothing Approach, *Joint Statistical Meeting*, Philadelphia, PA.[†]

Honors and Awards

Fellows

Nov 2023	FDA-OCE-ASA Oncology Educational Fellows
	Food and Drug Administration's Oncology Center of Excellence (FDA-OCE), the American Statistical Association (ASA), and the ASA's Biopharmaceutical Statistics Section (BIOP)

Travel Award

Mar 2024	College of Liberal Arts and Sciences at the University of Florida
	Eastern North American Region, Baltimore, MD.
Aug 2023	College of Liberal Arts and Sciences at the University of Florida
	Joint Statistical Meeting, Toronto, Canada.
Mar 2023	College of Liberal Arts and Sciences at the University of Florida
	Eastern North American Region, Nashville, TN.
Oct 2022	Boyd Harshbarger Travel Award (granted by NSF)
	Southern Regional Council on Statistics
Sep 2022	College of Liberal Arts and Sciences at the University of Florida
	ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Washington, D.C.
Aug 2022	College of Liberal Arts and Sciences at the University of Florida
	Joint Statistical Meeting, Washington, D.C.
Jun 2022	International Society for Bayesian Analysis (granted by NSF)
	International Society for Bayesian Analysis, Montreal, Canada.
Mar 2022	College of Liberal Arts and Sciences at the University of Florida
	Eastern North American Region, Houston, TX.
Dec 2021	UKC Fellow Award (Korean-American Scientists and Engineers Association)
	US-KOREA Conference, Los Angeles, CA
Oct 2021	Boyd Harshbarger Travel Award (granted by NSF)
	Southern Regional Council on Statistics

Scholarship

2017S – 2017F   Internal Scholarship (Merit-based Scholarship), **Yonsei University**
2013F – 2015S   Superiority Scholarship (Merit-based Scholarship), **Kyunghee University**

Assistantship

May 2020 – Present   Research Assistantship, **University of Florida**
Aug 2018 – Apr 2020   Teaching Assistantship, **University of Florida**
Sep 2016 – Feb 2018   Research Assistantship, **Yonsei University**
Sep 2016 – Feb 2018   Teaching Assistantship, **Yonsei University**

Professional Memberships

2023 – Present   Member, **Institute of Mathematical Statistics**
2021 – Present   Member, **International Society for Bayesian Analysis**
2021 – Present   Member, **Eastern North American Region**
2020 – Present   Member, **American Statistical Association**
2017 – Present   Member, **International Biometrics Society**

Services

Journal Referee

Journal of the Korean Statistical Society

Military Service

Oct 2010 – July 2012   Capital Mechanized Infantry Division, the Republic of Korea Army
Served and honorably discharged from the Republic of Korea Army

References

Michael J. Daniels, Professor
Department of Statistics   *Phone: +1 (352) 273-2966*
University of Florida   *E-mail: daniels@ufl.edu*
Chenguang Wang, Senior Director
Statistical Innovation, Biostatistics and Data Management   *Phone: +1 (914) 648-8305*
Regeneron Pharmaceuticals   *E-mail: chenguang.wang@regeneron.com*
Sangwook Kang, Professor
Department of Applied Statistics
Department of Statistics and Data Science   *Phone: +82 (02) 2123-2538*
Yonsei University   *E-mail: kanggi1@yonsei.ac.kr*