Woojung Bae Curriculum Vitae

Contact Information

Department of Statistics, University of Florida   Email: matt.woojung@gmail.com
Griffin-Floyd Hall, Gainesville, FL 32611

Education

Ph.D., Statistics, University of Florida   Aug 2018 – Aug 2024
Advisor: Dr. Michael J. Daniels
M.A., Statistics, Yonsei University   Mar 2016 – Feb 2018
Advisor: Dr. Sangwook Kang
Thesis: R Package afttest for Checking Semiparametric Accelerated Failure Time Models
B.S., Mathematics and B.E., Economics (Dual Degree), Kyung Hee University   Mar 2009 – Feb 2016

Work Experience

Graduate Intern

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

Research Assistant

Department of Statistics, University of Florida   May 2020 – Aug 2024
Advisor: Dr. Michael Daniels
Department of Applied Statistics, Yonsei University   Sep 2016 – Feb 2018
Advisor: Dr. Sangwook Kang

Teaching Assistant

Department of Statistics, University of Florida   Aug 2018 – May 2020
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   Sep 2016 – Feb 2018
STA 3123 Sampling Theory
STA 3108 Survival Analysis
STA 1001 Introduction to Statistics

Skills

Software: High performance computing, R, Rcpp, RcppArmadillo, Stan, SAS, MATLAB, LaTeX, GitHub

Research Interests

Bayesian method, semi-parametric method, casual inference, mediation analysis, survival analysis, methods for incomplete data (intercurrent event data & missing data), hierarchical model & software development

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

Missing data introduced by applying hypothetical strategies: are they really missing?, *Regeneron*, Tarrytown, NY.[†] — Oct 2023

A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *International Chinese Statistical Association China Conference*, Chengdu, Sichuan, China.[†] — Jun 2023

Missing data introduced by applying hypothetical strategies: are they really missing?, *Society for Clinical Trials*, Baltimore, MD. — May 2023

A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *Yonsei University*, Seoul, Korea. — Dec 2022

Missing data introduced by applying hypothetical strategies: are they really missing?, *ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop*, Washington, D.C. — Sep 2022

Topic Contributed Talk

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

Contributed Talk

A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *Eastern North American Region*, Baltimore, MD. — Mar 2024

Semiparametric Bayesian inference for causal mediation in cluster randomized trials, *Eastern North American Region*, Nashville, TN. — Mar 2023

Causal mediation in weight management trials using Bayesian nonparametrics, *Joint Statistical Meeting*, Washington, D.C. — Aug 2022

A more flexible Bayesian nonparametric approach to causal mediation, *Eastern North American Region*, Houston, TX. — Mar 2022

A more flexible Bayesian nonparametric approach to causal mediation, *US-KOREA Conference*, Los Angeles, CA.	Dec 2021
A more flexible Bayesian nonparametric approach to causal mediation, *Joint Statistical Meeting*, Seattle, WA.[†]	Aug 2021
A more flexible Bayesian nonparametric approach to causal mediation, *International Society for Bayesian Analysis*, University of Connecticut, Storrs, CT.[†]	Jul 2021
R package afttest for checking semiparametric accelerated failure time models afttest, *Korean Statistical Society Fall Meeting*, Seoul, Korea.	Nov 2017

Contributed Poster

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

Honors and Awards

Fellows

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)*	Jan 2024

Travel Award

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

Scholarship

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

Assistantship

Research Assistantship, **University of Florida**	May 2020 – Aug 2024
Teaching Assistantship, **University of Florida**	Aug 2018 – Apr 2020
Research Assistantship, **Yonsei University**	Sep 2016 – Feb 2018
Teaching Assistantship, **Yonsei University**	Sep 2016 – Feb 2018

Services

Journal Referee

Journal of the Korean Statistical Society

Military Service

Capital Mechanized Infantry Division, the Republic of Korea Army	Oct 2010 – July 2012

Served and honorably discharged from the Republic of Korea Army

Professional Memberships

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

References

Michael J. Daniels, Professor E-mail: daniels@ufl.edu
Department of Statistics
University of Florida
Chenguang Wang, Senior Director E-mail: chenguang.wang@regeneron.com
Statistical Innovation, Biostatistics and Data Management
Regeneron Pharmaceuticals
Sangwook Kang, Professor E-mail: kanggi1@yonsei.ac.kr
Department of Applied Statistics
Department of Statistics and Data Science
Yonsei University