Woojung Bae Curriculum Vitae

Contact Information

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

Work Experience

Ph.D. Research Intern, Regeneron Pharmaceuticals Inc.   May 2022 – Aug 2022
Mentor: Dr. Chenguang Wang

Education

Ph.D., Statistics, University of Florida   2024
Advisor: Dr. Michael J. Daniels
⋄ Research Assistant, Department of Statistics   May 2020 – Aug 2024
⋄ Teaching Assistant, Department of Statistics   Aug 2018 – May 2020
M.A., Statistics, Yonsei University   2018
Advisor: Dr. Sangwook Kang
Thesis: R Package afttest for checking semiparametric accelerated failure time models
⋄ Research Assistant, Department of Applied Statistics   Sep 2016 – Feb 2018
⋄ Teaching Assistant, Department of Applied Statistics   Sep 2016 – Feb 2018
B.S., Mathematics and B.E., Economics, Kyung Hee University   2016

Research Interests

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

Skills

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

Papers

† : Co-first author

Working Papers

5. **Bae, W.**, Daniels, M, and Wang, CG. (2024+) Missing data introduced by applying hypothetical strategies: are they really missing?
4. **Bae, W.**, Daniels, M., Hogan, J., and Chrysanthopoulou, S. (2024+) Semiparametric Bayesian inference for causal mediation in cluster randomized trials.
3. **Bae, W.**, Choi, D., Yan, J., and Kang, S. (2024+) `afttest:` model diagnostics for semiparametric accelerated failure time models in R

Published & Preprint

2. **Bae, W.**, Daniels, M., and Perri, M. (2024+) A Bayesian non-parametric approach for causal mediation with a post-treatment confounder, *Biometrics*, revision submitted. preprint
1. Choi, D.[†], **Bae, W.**[†], Yan, J., and Kang, S. (2024+) A general goodness-of-fit tests for semiparametric accelerated failure time models, *Statistics and Computing*, To appear. 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

Semiparametric Bayesian inference for causal mediation in cluster randomized trials, *Joint Statistical Meeting*, Portland, OR.	Aug 2024
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	Jan 2024

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

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

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