

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 <i>Advisors: Dr. Michael J. Daniels</i> |
| Mar 2016 – Feb 2018 | M.A., Statistics, Yonsei University <i>Thesis: R Package afttest for Checking Semiparametric Accelerated Failure Time Models</i> <i>Advisors: Dr. Sangwook Kang</i> |
| 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.
Under the supervision of Dr. Chenguang Wang

Research Assistant

| | |
|---------------------|----------------------------------------------------------------------------------------------------------|
| May 2020 – Present | Department of Statistics, University of Florida <i>Under the supervision of Dr. Michael Daniels</i> |
| Sep 2016 – Feb 2018 | Department of Applied Statistics, Yonsei University <i>Under the supervision of Dr. Sangwook Kang</i> |

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, Longitudinal Data Models, Biostatistics, Survival Analysis, Incomplete Data Models, Building a Software

Skills

Languages & Software R, RCPP, SAS, MATLAB, \LaTeX

Working Papers

* : Co-first author

6. **Bae, W.**, Michael G. Perri, and Daniels, M. Causal mediation in weight management trials using Bayesian nonparametrics.
5. **Bae, W.**, Wang, CG and Daniels, M. 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.**, Michael G. Perri, and Daniels, M. A Bayesian non-parametric approach for causal mediation with a post-treatment confounder.
2. **Bae, W.***, Choi, D.* and Kang, S. afttest: model diagnostics for semiparametric accelerated failure time models in R.
1. Choi, D.*, **Bae, W.*** and Kang, S. A more general Goodness-of-fit tests for semiparametric accelerated failure time models, submitted.

Software

R package

afttest Model diagnostics for accelerated failure time models, [CRAN](#), [GitHub](#)

Presentation

Invited Talk

- 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 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

Travel Award

- Mar 2023 College of Liberal Arts and Sciences at 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 University of Florida
ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Washington, D.C.
- Aug 2022 College of Liberal Arts and Sciences at 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 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 Journal of the Korean Statistical Society

Professional Memberships

- 2021 – Present Member, **The 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, Republic of Korea Army
Served and honorably discharged from Korea Army