

# Chaegeun Song

## EMPLOYMENT

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**Assistant Professor of Statistics** August 2025 - Present  
 Department of Mathematics, Bryn Mawr College Bryn Mawr, PA

## EDUCATION

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**Ph.D. in Statistics** August 2025  
 The Pennsylvania State University University Park, PA  
 Advisor: Bing Li

**M.A. in Applied Statistics** August 2020  
 Yonsei University Seoul, Korea

**B.A. in Applied Statistics** February 2018  
 Yonsei University Seoul, Korea

## FIELDS OF INTEREST

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- **Topic:** Statistical machine learning, Dimension reduction, Uncertainty quantification, Optimization
- **Data:** Mixed data, Categorical data, Single-cell data

## PAPERS

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- Chaegeun Song, Zhong Zheng, Bing Li, and Lingzhou Xue. (2025+). “Collapsing categories for sufficient dimension reduction with mixed predictors” *In preparation*.
- Jinyi Xiang, Chaegeun Song, Xueqiu Lin, and Xiang Zhu. (2025+) “Characterization of long-term hematopoietic stem cell niche at single-cell resolution by in situ sequencing.” *In preparation*.
- Chaegeun Song, Zhong Zheng, Bing Li, and Lingzhou Xue. (2025+). “Collapsing categories for regression with mixed predictors.” *Submitted*.
- Chaegeun Song and Bing Li. (2025). “On exact Bayesian credible sets for discrete parameters.”. *Statistics & Probability Letters*.

## HONORS AND AWARDS

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- **Climate and Diversity Award, Honorable mention** 2024  
 Department of Statistics, The Pennsylvania State University
- **Travel Award** 2024  
 International Society for Bayesian Analysis (ISBA)
- **Penn State Graduate Student International Travel Grants** 2024  
 The Pennsylvania State University
- **Harkness Award for Excellence in Teaching, Runner up** 2023  
 Department of Statistics, The Pennsylvania State University
- **Honors** 2012, 2016, 2017  
 Yonsei University

## RESEARCH EXPERIENCE

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<b>Ph.D. Student Research Assistant</b> , The Pennsylvania State University	2020 - 2025
<b>Research Team Leader</b> , Institute of Convergence Science (ICONS)	2019 - 2020
<b>Graduate Research Assistant</b> , Yonsei Institute of Data Science (YIDS)	2018 - 2020
<b>Data Analyst</b> , Seoul Philharmonic Orchestra	2016

## TEACHING EXPERIENCE

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### **Instructor**, The Pennsylvania State University

- STAT 440 - Computational Statistics Fall 2023
- STAT 318 - Elementary Probability Fall 2022, Spring 2023

### **Teaching Assistant**, The Pennsylvania State University

- STAT 380 - Data Science Through Statistical Reasoning and Computation Summer 2023
- STAT 200 - Introduction to Statistics Summer 2021, Spring 2022
- STAT 250 - Introduction to Biostatistics Fall 2021
- STAT 414 - Mathematical Statistics Spring 2021
- STAT 318 - Elementary Probability Fall 2020

### **Teaching Assistant**, Yonsei University

- STA3125 - Regression Analysis Fall 2018, Fall 2019
- STA3126 - Mathematical Statistics I Spring 2018, Spring 2019
- STA3125 - Introduction to Statistics Summer 2018, Winter 2018

## PRESENTATIONS

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- 2024 Joint Statistical Meetings. Portland, OR 2024
- 2024 ISBA World Meetings. Venice, Italy 2024
- 2023 Nonparametric Statistics and Statistical Learning Meeting. The Pennsylvania State University 2023

## PROFESSIONAL SERVICE AND OUTREACH

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- Reviewer for Journal of the American Statistical Association 2025
- Chair of New Advances in Nonparametric Modeling. 2024 Joint Statistical Meetings 2024
- Volunteer Tutor of Adult Learning. Mid-State Literacy Council 2024
- Discussant. Workshop on Statistical Network Science with Applications 2023

## SKILLS

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- Programming: R, Python, MATLAB
- Languages: Korean (native), English (fluent)