Wei Jin

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EDUCATION

Johns Hopkins University, Baltimore, MD (Advisor: Prof. Yanxun Xu)
Ph.D. in Applied Mathematics and Statistics   2018 - 2022
Dissertation Title: *Novel Bayesian Methods for Precision Medicine in HIV*
M.S.E in Computer Science   2019 - 2021
M.S.E in Applied Mathematics and Statistics   2016 - 2018
Cumulative GPA: 4.00/4.00

Sichuan University, Chengdu, China
B.S. in Mathematics and Applied Mathematics   2012 - 2016
Honor Degree in Wu Yuzhang Honors College
Cumulative GPA: 3.72/4.00 (Rank: 1/37)

EMPLOYMENT

Postdoctoral Fellow (Advisors: Prof. Yanxun Xu and Prof. Peter Müller)   2022 - Present
Department of Applied Mathematics and Statistics
Johns Hopkins University, Baltimore, MD

Research Scientist Intern   Summer 2022
Eli Lilly and Company, Indianapolis, IN

Research Assistant   2018 - 2022
Department of Applied Mathematics and Statistics
Johns Hopkins University, Baltimore, MD

RESEARCH INTERESTS

- **Theory and Methods**
  Bayesian Nonparametrics, Dynamic Treatment Regimes, Reinforcement Learning,
  Causal Discovery, Graphical Models
- **Applications**
  Electronic Health/Medical Data, Precision Medicine in HIV, Alzheimer's Disease Biomarkers

PUBLICATIONS AND PREPRINTS

1. **Jin, W.**, Ni, Y., O'Halloran, J., Spence, A.B., Rubin, L.H., and Xu, Y. (2023) *"A Bayesian Decision Framework for Optimizing Sequential Combination Antiretroviral Therapy in People with HIV."* **Annals of Applied Statistics**. Accepted. (**Winner of the Conference on Advances in Bayesian and Frequentist Statistics Poster Award**)

2. Rubin, L.H., Maki, P.M., Dastgheyb, R., Steigman, P., Burke-Miller, J., Xu, Y., **Jin, W.**, Sosanya, O., Gustafson, D., Merenstein, D., Milam, J., Weber, K., Springer, G., and Cook, J. (2023) *"Trauma Across the Lifespan and Multisystem Morbidity in Women with HIV."* **Psychosomatic Medicine**. Accepted.

3. **Jin, W.**, Ni, Y., Rubin, L.H., Spence, A.B., and Xu, Y. (2022) *"A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV."* **Biometrics**, 78(3), 988-1000. **(Winner of the Joint Statistical Meetings (JSM) Student Paper Award, Mental Health Statistics Section)**

4. Gouet, C., **Jin, W.**, Naiman, D.Q., Peña, M., and Halberda, J. (2021) *"Bias and Noise in Proportion Estimation: A Mixture Psychophysical Model."* **Cognition**, 213, 104805.

5. Fitzgerald, K.C., Maki, P.M., Xu, Y., **Jin, W.**, Dastgheyb, R., Williams, D.W., Springer, G., Anastos, K., Gustafson, D., Spence, A.B., Adimora, A.A., Waldrop, D., Vance, D.E., Bolivar, H., Valcour, V.G., and Rubin, L.H. (2020) *"Factors Predicting Detrimental Change in Declarative Memory Among Women with HIV: A Study of Heterogeneity in Cognition."* **Frontiers in Psychology**, 11, 548521.

6. Xie, F., **Jin, W.**, and Xu, Y. (2019) *"Rates of Contraction with Respect to L_2-Distance for Bayesian Nonparametric Regression."* **Electronic Journal of Statistics**, 13(2), 3485-3512.

PAPERS IN PREPARATION

1. **Jin, W.**, Ni, Y., Spence, A.B., Rubin, L.H., and Xu, Y. *"Long-Short-Term Cyclic Structural Causal Model for Time-Series Causal Discovery."*

2. **Jin, W.**, Ni, Y., Spence, A.B., Rubin, L.H., and Xu, Y. *"A Bayesian Tree Model for Inferring Longitudinal Drug Combination Effects on Depression in People with HIV."*

3. **Jin, W.**, Wang, Z., and Xu, Y. *"Longitudinal Model of Alzheimer's Disease Biomarkers with an Unknown Gold Standard."*

ACADEMIC PRESENTATIONS

07/2022 Bayesian Seminar at Eli Lilly and Company, Indianapolis, IN.
"A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV."

04/2022 Conference on Advances in Bayesian and Frequentist Statistics, Rutgers University, New Brunswick, NJ.
"A Bayesian Decision Framework for Optimizing Sequential Combination Antiretroviral Therapy in People with HIV."

08/2021 Joint Statistical Meetings (JSM), Virtual.
"A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV."

06/2021 World Meeting of the International Society for Bayesian Analysis (ISBA), Virtual.
"A Bayesian Tree Model for Inferring Longitudinal Drug Combination Effects on Depression in People with HIV."

12/2020 International Chinese Statistical Association (ICSA) Applied Statistics Symposium, Virtual.
"A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV."

10/2020 Applied Mathematics and Statistics Student Seminar, Johns Hopkins University, Baltimore, MD.
"A Bayesian Nonparametric Approach for Inferring Drug Combination Effects on Mental Health in People with HIV."

10/2017 Applied Mathematics and Statistics Student Seminar, Johns Hopkins University, Baltimore, MD.
"Mathematical Models of Proportional Reasoning in Cognitive Science."

TEACHING EXPERIENCE

Teaching Assistant   2018 - 2020
Johns Hopkins University, Baltimore, MD

- EN.553.602 Research and Design in Applied Mathematics   Spring 2020

- EN.553.636 Data Mining/Introduction to Data Science   Fall 2018, Spring 2019, Spring 2020
- EN.553.720 Probability Theory I   Fall 2019
- EN.553.731 Statistical Theory II   Spring 2018, Spring 2019
- EN.553.782 Statistical Uncertainty Quantification   Fall 2018

HONORS AND AWARDS

- Rufus P. Isaacs Graduate Fellowship, Johns Hopkins University   2022
- Conference on Advances in Bayesian and Frequentist Statistics Poster Award   2022
- Joint Statistical Meetings (JSM) Student Paper Award, Mental Health Statistics Section 2021
- Acheson J. Duncan Fund for the Advancement of Research in Statistics   2017
- Honorable Mention of Mathematical Contest in Modeling   2014

TECHNICAL SKILLS

- Proficient in R, Python, C++, SQL, Linux, LaTeX