# JIAWEI SHAN

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## APPOINTMENT

**University of Wisconsin–Madison** 3/2025 – present
Postdoctoral Research Associate
Department of Statistics & Department of Biostatistics and Medical Informatics
Mentor: Jiwei Zhao

## EDUCATION

**Renmin University of China** 9/2019 – 12/2024
Ph.D. in Statistics, Institute of Statistics and Big Data
Advisor: Chunrong Ai

**Shandong University** 9/2015 – 6/2019
B.S. in Mathematics, School of Mathematics

## RESEARCH EXPERIENCE

**The Chinese University of Hong Kong, Shenzhen** 9/2021 – 12/2024
Visiting Scholar, School of Management and Economics

**The Academy of Mathematics and Systems Science** 9/2018 – 6/2019
Undergraduate Exchange Student, Joint Training Program

## RESEARCH INTERESTS

Causal inference, Data integration, Trustworthy inference for AI-predicted and synthetic data

## PUBLICATIONS

*Corresponding author †Alphabetical authorship or equal contribution

### Journal Articles

1. **Shan, J.**, Li, W., and Ai, C. (2026). Efficient nonparametric inference for mediation analysis with nonignorable missing confounders. *Journal of the American Statistical Association*. In press. DOI

2. Ghosh, T.†, **Shan, J.**†, Yu, M.†, and Zhao, J.† (2026). Efficient estimation of average treatment effect on the treated under endogenous treatment assignment. *Journal of Machine Learning Research*. In press. arXiv

3. **Shan, J.**, Chen, Z., Dong, Y., Wang, Y., and Zhao, J. (2026). SADA: Safe and adaptive aggregation of multiple black-box predictions in semi-supervised learning. *The Annals of Applied Statistics*. In press. arXiv

4. Ai, C., and **Shan, J.*** (2026). Efficient estimation of average treatment effects with unmeasured confounding and proxies. *Statistica Sinica*. In press. DOI

5. Ai, C., **Shan, J.***, and Zhu, L. (2026). Kernel estimation of average treatment effects in models with unmeasured confounders. *Canadian Journal of Statistics*, 54(2), e70021. DOI

6. **Shan, J.**, Wang, T., Li, W., and Ai, C. (2025). Nonparametric estimation of path-specific effects in the presence of nonignorable missing covariates. *Scandinavian Journal of Statistics*, 52(4), 1556–1593. DOI

7. **Shan, J.**, and Yan, X. (2024). Nonparametric causal inference with confounders missing not at random. *Statistica Neerlandica*, 78(4), 573–583. DOI

**Discussion**

8. **Shan, J.**, Ying, C., and Zhao, J. (2026). Contribution to the discussion of "Augmented balancing weights as linear regression" by Bruns-Smith et al. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 88(3), 733–736. DOI

**Preprints**

9. **Shan, J.**, Tu, Y., Wang, G., Ying, C., and Zhao, J. (2026). Beyond exchangeability: Distribution-shift-aware integration of external control data in randomized trials. arXiv

10. Zhang, X., **Shan, J.***, and Li, W.* (2026). Proximal mediation analysis with unmeasured treatment-induced confounding. arXiv

## PRESENTATIONS

| | | |
|---|---|---|
| 1. | SLDS 2026 Conference: Inference and Intelligence, New York, NY | 11/2026 |
| 2. | BTBU Causal Seminar (virtual) | 10/2026 |
| 3. | IMSI Workshop on Statistical Foundations of Generative Modeling, Chicago, IL (poster) | 10/2026 |
| 4. | IFDS Research Expo, University of Wisconsin–Madison, Madison, WI (poster) | 8/2026 |
| 5. | 2026 Joint Statistical Meetings, Boston, MA | 8/2026 |
| 6. | STAI-X 2026, Harvard University, Cambridge, MA (poster) | 7/2026 |
| 7. | IMSI Workshop on New Horizons on Model Transportability and Data Integration, Chicago, IL | 6/2026 |
| 8. | ENAR 2026 Spring Meeting, Indianapolis, IN | 3/2026 |
| 9. | BMI Seminar, University of Wisconsin–Madison, Madison, WI | 11/2025 |
| 10. | 2025 Joint Statistical Meetings, Nashville, TN | 8/2025 |
| 11. | The 8th National PhD Student Forum in Statistics, Guangzhou, China | 9/2024 |
| 12. | The 2nd Joint Conference on Statistics and Data Science, Kunming, China | 7/2024 |
| 13. | The 4th Symposium on "Big Data Econometrics Theory and Applications—Artificial Intelligence and Econometric Modeling," Xiamen, China | 5/2024 |
| 14. | The 2023 National PhD Student Forum in Quantitative Economics, Xiamen, China | 11/2023 |

## TEACHING

**Renmin University of China**

- Teaching Assistant, Causal Inference (graduate) Fall 2022
- Teaching Assistant, Biostatistics (graduate) Fall 2021

## PROFESSIONAL SERVICE

**Journal Referee**

2026 *Annals of Applied Statistics, Biometrical Journal, Biostatistics, Economics Letters, Epidemiology, Journal of Applied Statistics, Journal of Nonparametric Statistics, Journal of the Royal Statistical Society Series A, Scandinavian Journal of Statistics, Statistics & Probability Letters, Transactions on Machine Learning Research*

2025 *Annals of Applied Statistics, Biometrics, Journal of Nonparametric Statistics, Journal of the Royal Statistical Society Series A, Scandinavian Journal of Statistics*

**Conference Reviewer**

AISTATS 2026, ICLR 2027, ICML 2026, NeurIPS 2026, STAI-X 2026

## REFERENCES

**Chunrong Ai**
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