

# Hao Zeng

Postdoc, Department of Statistics and Data Science, Southern University of Science and Technology

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## EDUCATION

<b>Gregory and Paula Chow Institute for Studies in Economics, Xiamen University</b> <i>Ph.D. in Statistics, Supervised by Wei Zhong, Xingbai Xu, and Tuo Liu</i>	Sep 2020 – Jun 2024
<b>Wang Yanan Institute for Studies in Economics, Xiamen University</b> <i>M.S. in Quantitative Economics</i>	Sep 2018 – Jun 2020 <i>Transfer to Ph.D. in Statistics</i>
<b>School of Mathematics, Shandong University</b> <i>B.S. in Mathematics (Peng's Class: Base of Financial Mathematics &amp; Financial Engineering)</i>	Sep 2014 – Jun 2018

## RESEARCH INTERESTS

**Statistical Machine Learning:** Theory and Methods, Uncertainty Quantification in Machine Learning, Conformal Prediction, Transfer Learning  
**Interdisciplinary Research:** Spatial Statistics, Econometrics, and Biostatistics

## EXPERIENCE

<b>Southern University of Science and Technology &amp; National University of Singapore</b> <i>Postdoctoral Researcher in Statistics, Supervised by Bingyi Jing, Hongxin Wei, and Wang Zhou</i>	Jul 2024 – Present
<b>Department of Statistics, National University of Singapore</b> <i>Visiting Researcher</i>	May 2023 – Oct 2023
<b>School of Economics, Xiamen University</b> <i>Teaching Assistant in Probability Introduction (Undergraduate)</i>	Fall 2022
<b>School of Economics, Xiamen University</b> <i>Teaching Assistant in Real Analysis (Undergraduate)</i>	Spring 2022
<b>School of Economics, Xiamen University</b> <i>Teaching Assistant in Advanced Probability Theory (Postgraduate)</i>	Fall 2021
<b>School of Economics, Xiamen University</b> <i>Teaching Assistant in Real Analysis (Undergraduate)</i>	Spring 2021
<b>School of Economics, Xiamen University</b> <i>Teaching Assistant in Advanced Econometrics I (Postgraduate)</i>	Fall 2019

## PUBLICATIONS

(\* means corresponding author, † means equal contribution.)

### Journal Articles

- Liu, K., Sun, T., **Zeng, H.**, Zhang, Y., Pun, C.-M., & Vong, C.-M. (2025). "Spatial-Aware Conformal Prediction for Trustworthy Hyperspectral Image Classification." *IEEE Transactions on Circuits and Systems for Video Technology*. <https://ieeexplore.ieee.org/abstract/document/10960721/>
- Zeng, H.**, Wan, C., Zhong, W., & Liu, T. (2024). "Robust Integrative Analysis via Quantile Regression with Homogeneity and Sparsity." *Journal of Statistical Planning and Inference*, 234 (June): 106196. <https://doi.org/10.1016/j.jspi.2024.106196>
- Wan, C.†, **Zeng, H.\*†**, Zhang, W.†, Zhong, W.†, & Zou, C.†. (2024). "Data-driven Estimation for Multithreshold Accelerated Failure Time Model." *Scandinavian Journal of Statistics*, November, sjos.12758. <https://doi.org/10.1111/sjos.12758>

### Conference Papers

- Zeng, H.†**, Liu, K.†, Jing, B., & Wei, H. (2025). "Parametric Scaling Law of Tuning Bias in Conformal Prediction." *Forty-Second International Conference on Machine Learning*. <https://openreview.net/forum?id=jnJLZXSOin>

### Working Papers

- Gao, H., Zhang, F., **Zeng, H.**, Meng, D., Jing, B., & Wei, H. (2025). "Exploring Imbalanced Annotations for Effective In-Context Learning." *arXiv*. <https://doi.org/10.48550/arXiv.2502.04037>
- Xi, H., Liu, K., **Zeng, H.**, Sun, W., & Wei, H. (2025). "Robust Online Conformal Prediction under Uniform Label Noise." *arXiv*. <https://doi.org/10.48550/arXiv.2501.18363>
- Zeng, H.**, Zhong, W., & Xu, X. (2024). "Transfer Learning for Spatial Autoregressive Models with Application to U.S. Presidential Election Prediction." *arXiv*. <https://doi.org/10.48550/arXiv.2405.15600> (Under Review in *Journal of Business & Economic Statistics*)

### Software

- 2023**
- Wan, C., **Zeng, H.**, Zhong, W., & Zou, C. (2023). "MTAFT: Data-Driven Estimation for Multi-Threshold Accelerate Failure Time Model." <https://cran.r-project.org/web/packages/MTAFT/index.html>

## AWARDS

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<i>Excellent Teaching Assistant in Fall 2022-2023</i>	2024
<i>Meritorious Winner, Interdisciplinary Contest in Modeling, USA</i>	2016
<i>3rd Prize at the Provincial Level, Mathematics Competition for Chinese College Students</i>	2016
<i>2nd Prize at the Provincial Level, China Undergraduate Mathematical Contest in Modeling</i>	2015
<i>1st Prize for Outstanding Students, Shandong University</i>	2015
<i>Three Good Student, Shandong University</i>	2015

## CONFERENCE PRESENTATIONS

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<i>Talk in The 2021 Forum for Doctoral Students in Quantitative Economics</i>	Dec 2021, Xiamen
<i>Invited Talk in Xiamen University 2021 Symposium on Modern Statistics</i>	Dec 2021, Xiamen
<i>Invited Talk in 2023 PhD Forum on Econometric Modeling and Economic Policy Research</i>	Nov 2023, Beijing
<i>Poster in Conference of the Youth Association of the Chinese Association for Industrial Statistics</i>	Mar 2024, Xuzhou
<i>Invited Talk in The 1st Outstanding PhD Forum in Economics and Management Statistics</i>	Jun 2024, Xiamen
<i>Invited Talk in The 2nd Joint Conference on Statistics and Data Science</i>	Jul 2024, Kunming
<i>Talk in The 13th Conference on Probability and Statistics</i>	Nov 2024, Xiamen
<i>Poster in The 3rd Joint Conference on Statistics and Data Science</i>	Jul 2025, Hangzhou
<i>Poster in Forty-Second International Conference on Machine Learning</i>	Jul 2025, Vancouver, Canada

## ACADEMIC SERVICES

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Reviewer: *International Statistical Review*, *Spatial Economic Analysis* and *Quarterly Journal of Economics and Management*.