Yuxuan Ke

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EDUCATION

University of Michigan, Ann Arbor   **Ann Arbor, MI**
Ph.D. in Statistics   Expected Apr. 2027
- **GPA:** 3.89 / 4.0
- **Relevant Coursework:** *Data Science in Python, Regression Analysis, Statistical Theory I, Probability Theory, Statistical Learning, Computation and Optimization Methods in Statistics, Statistical Practice, Spatial Statistics, Monte Carlo Methods*

M.A. in Statistics (Embedded)   May. 2025

University of Science and Technology of China   **Hefei, Anhui**
Bachelor of Science in Statistics   Jun. 2022
- **GPA:** 3.72 / 4.3
- **Honors:** Outstanding Student Scholarship (Top 10%) 2019-2021

AWARD
- Spring Research Conference (SRC) 2025 Student Travel Award

PUBLICATIONS
- [Preprint] Ke, Y., Huang, X., Coddington, O., & Chen, Y. (2025). Matrix Factorization-Based Solar Spectral Irradiance Missing Data Imputation with Uncertainty Quantification. *arXiv preprint arXiv:2508.04074*.

RESEARCH EXPERIENCES

Matrix Factorization-Based Solar Spectral Irradiance Missing Data Imputation   **Ann Arbor**
Researcher, University of Michigan. Advised by Dr. Yang Chen   May. 2023 - Jul. 2025
- Develop matrix factorization-based with temporal smoothness method to impute downtime missingness in solar spectral irradiance (SSI) observations.
- Design conformal prediction interval estimates and compare it with uncertainty estimates given by GP and state-space model. Coverage rate is validated through simulation study.
- Analyze algorithmic convergence. Develop and implement the algorithm in R.

Casual Inferences Summer Research   **Remote**
Undergraduate Researcher, University of Chicago. Advised by Dr. Jingshu Wang   Jul. 2021 – Oct. 2021
- Apply empirical partially Bayes methods to increase statistical power in three-sample Mendelian Randomization (MR) through shrinkage effects.
- Develop and implement the method using R.

TEACHING

University of Michigan   **Ann Arbor**
Graduate Student Instructor, Department of Statistics
STATS 451, Bayesian Data Analysis   Jan. 2024 - Apr. 2024

	Aug. 2025 - Dec. 2025
DATASCI 101, Introduction to Data Science	Aug. 2024 - Dec. 2024
STAS 250, Introduction to Statistics and Data Analysis	Jan. 2023 - Apr. 2023
STATS 425, Introduction to Probability	Aug. 2022 - Dec. 2022

University of Science and Technology of China   **Hefei, China**
Teaching Assistant, Department of Mathematics
Mathematical Analysis II   Mar. 2021 – Jul. 2021

PRESENTATION

Matrix Factorization-Based Solar Spectral Irradiance Missing Data Imputation

[Talk] Spring Research Conference. New York, NY	Jun. 2025
[iPoster] American Geophysical Union (AGU) Annual Meeting. Washington, D.C.	Dec. 2024
[Poster] Joint Statistical Meeting (JSM). Portland, OR	Aug. 2024
[Poster] Michigan Student Symposium for Interdisciplinary Statistical Sciences (MSSISS). Ann Arbor, MI	Mar. 2024

SKILLS

Computer Languages: R, Python, SQL, C, Matlab