

Sifan Tao

Curriculum Vitae

1300 University Ave
Madison, WI 53706
✉ sifan.tao@wisc.edu
🌐 <https://www.sifantao.com>
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Education

- 2023 – Present **PhD Student in Statistics**, *University of Wisconsin-Madison*.
- 2019 – 2023 **BS in Statistics, with a second major in mathematics**, *University of Virginia*.
with distinction, Phi Beta Kappa
- Fall 2020 **UVA at Fudan: Go Local**, *School of Data Science, Fudan University*.

Presentations

Conference Poster Presentations

- May 2025 **Uncertainty Quantification and Machine Learning for Complex Physical Systems**, *Variance Reduction under Grouped Variables in Sobol Models*, Institute for Mathematical and Statistical Innovation, Advised by Peter Chien.

Invited Talks

- November 2021 **Ohio State Sports Analytics Association Conference 2021**, *Modeling Stochastic Soccer Game Dynamics using Potential Functions*, Ohio State University, Joint work with Nicholas Ho, Adhvaith Vijay.
- October 2021 **Carnegie Mellon Sports Analytics Conference 2021**, *An Interpretable Method of Learning Stochastic Game Dynamics*, Carnegie Mellon University, Joint work with Nicholas Ho, Adhvaith Vijay.

Invited Guest Lectures

- October 2022 **STAT4800 Advanced Sport Analytics**, *Modeling Stochastic Soccer Game Dynamics using Potential Functions*, University of Virginia, Invited by Professor Jordan Rodu.
Undergraduate course on sport analytics.

Student Research Experience

- Fall 2024 – Present **Graduate Research Assistant**, *Leverage-based Orthogonalizing EM Method, Variance Reduction for Grouped Variables, Group-based Bayesian Optimization*, Advised by Peter Chien.
University of Wisconsin-Madison
- Fall 2021 – Fall 2022 **Undergraduate Research Assistant**, *Core-Periphery Trading Networks*, Advised by Chaojun Wang.
The Wharton School, University of Pennsylvania
- Fall 2021 – Spring 2022 **Undergraduate Research Course**, *Bayesian Propensity Scores, Sentiment analysis of Covid-19 tweet*, Advised by Xin Tong.
University of Virginia
- Fall 2021 **Undergraduate Independent Study Course**, *Causal Inference*, Advised by Jordan Rodu.
University of Virginia
- Summer 2021 **Summer Undergraduate Research Experience**, *Modeling Stochastic Soccer game Dynamics using Potential functions*, Advised by Konstantinos Pelechrinis.
Carnegie Mellon Sports Analytics Camp 2021

March 2021 – **Undergraduate Research Assistant**, *Why Trade Over-the-counter? When Investors Want Price*
April 2021 *Discrimination*, Advised by Chaojun Wang.
The Wharton School, University of Pennsylvania

Service

Professional Service

Reviewer Journal of Statistical Planning and Inference

Teaching

Courses Served as Teaching Assistant at University of Wisconsin-Madison

Spring 2025, **STAT340 Data Science Modeling II.**
Fall 2025

Fall 2024 **STAT240 Data Science Modeling I.**

Spring 2024 **STAT371 Introductory Applied Statistics for the Life Science.**

Fall 2023 **STAT324 Introductory Applied Statistics for Engineers.**

Courses Served as Teaching Assistant at University of Virginia

Fall 2021, **STAT3080 From Data to Knowledge.**
Fall 2022

Computer Skills

Proficient R

Intermediate Python

Beginner Shell, Java, SAS

Language

Bilingual Chinese, English

Beginner Japanese