# Zifeng Zhang

300 George St, New Haven, CT 06511 Website: jornzhang.github.io Email: nk12chang@gmail.com

## **Employment**

#### Postdoctoral Associate

2025 — present

Yale University, New Haven, Connecticut Joint program with Boehringer Ingelheim

Supervisor: Prof. Hongyu Zhao

#### Education

Ph.D. in Statistics 2019-2025

Colorado State University, Fort Collins, Colorado

Advisor: Prof. Wen Zhou

Co-advisor: Prof. Haonan Wang

GPA: 4.0/4.0

M.A.S. in Applied Statistics

2016 - 2018

Nankai University, Tianjin, China

GPA: 87.9/100

B.A. in Economics, Specialization in Insurance

2012 - 2016

Nankai University, Tianjin, China

GPA: 87.9/100

#### Research Interests

- High-dimensional statistics
- Causal inference, interference, mediation analysis
- Network analysis, graphical modeling
- Post-clustering inference
- Applications of statistical methodologies to biological data and economic data

## **Publications and Manuscripts**

1. **Zhang, Z.**, Ding, P., Zhou, W., and Wang, H. (2025) With random regressors, least squares inference is robust to correlated errors with unknown correlation structure. *Biometrika*, 112 (1), asae054. (ArXiv, website)

- 2. **Zhang, Z.**, Ding, P., and Zhou, W. (2025+) F Distribution in Linear Regression: A New Lens Through One Century Journey. To be submitted.
- 3. **Zhang, Z.**, Yang, F., Ding, P., and Zhou, W. (2025+) Mediation analysis with interactions and heredity under growing number of mediators. To be submitted.
- 4. Lei, L, **Zhang, Z.**, Ding, P., and Zhou, W. (2025+) Double robustness of t statistics under various standard errors with respect to different assumptions on the regressors and errors. In progress.

## **Teaching**

#### Stand-alone Instructor

General Statistics (STAT201) SM2020, SM2024

Undergraduate introduction to techniques in descriptive statistics and inference.

Introduction to Applied Statistics (STAT301) FA2021, SP2022, FA2022, SP2023, Undergraduate introduction to techniques in descriptive FA2023, SP2024, FA2024, SP2025

statistics, inference, and regression.

**Recitation Instructor** 

General Statistics (STAT201) FA2019, SP2020, SP2021

Teaching Assistant

Intro to Theory and Practice of Statistics (STAT315) FA2019

Undergraduate course for probability theory and statistics.

Regression Models and Applications (STAA551) FA2020

Regression analysis for the program of Master of Applied Statistics.

Analysis of Time Series (STAA573) FA2020

Time series analysis for the program of Master of Applied Statistics.

Introduction to Probability Theory (STAT520) FA2021

Graduate course for probability, random variables, distributions, ex-

pectations, generating functions, and limit theorems.

Probability Theory (STAT720) FA2022, FA2023, FA2024

Graduate course for set theory, measure theory, Lebesgue integral, and conditional expectation.

Advanced Theory of Statistics (STAT730) SP2023, SP2024, SP2025

Graduate course for U-statistics, Hajek projection, moment estimator, maximum-likelihood methods, concentration inequalities, empirical process, and statistical decision theory.

#### Presentations

"Mediation analysis with interactions and heredity under growing number of mediators," IRSA, Minneapolis, MN. 5/2024 (Student Poster Competition)

"When least square inference with random regressors encounters unknown correlated errors," WNAR, Fort Collins, CO. 6/2024. (Student Paper Oral Presentation)

## Honors and Awards

Gongneng Scholarship	Nankai University, China	2013
Graduate Scholarship for Outstanding Freshmen	Nankai University, China	2016

## Computing Skills

R, High Performance Computing