Yijin Ni (she/her)

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Research Interests

Deep learning theory, kernel methods, hypothesis testing, dimension reduction, generative models, direct preference learning, and fairness representation learning.

Education

Georgia Institute of Technology, Ph.D. in Statistics, GPA: 3.9/4.0 — January 2021 – Present
- H. Milton Stewart School of Industrial and Systems Engineering (ISyE);
- Supervisor: Xiaoming Huo;
- Minor: Operations Research.

University of Science and Technology of China, Research Assistant — July 2020 – August 2021
- Supervisor: Canhong Wen.

University of Science and Technology of China, B.Sc. in Statistics, GPA: 3.9/4.3 — August 2016 – June 2020
- School of Management.

Publications

Simultaneous Dimension Reduction and Variable Selection for Multinomial Logistic Regression — May 2023

Canhong Wen, Zhenduo Li, Ruipeng Dong, *Yijin Ni*, Wenliang Pan.

Informs Journal on Computing, 35.5 (2023): 1044-1060.

Sequential and Simultaneous Distance-based Dimension Reduction — December 2025

Yijin Ni, Chuanping Yu, Xiaoming Huo.

Journal of Nonparametric Statistics (2025): 1-30.

Preprints

A Uniform Concentration Inequality for Kernel-Based Two-Sample Statistics — 2025+

Yijin Ni, Xiaoming Huo.

Kernel-based Equalized Odds: A Quantification of Accuracy-Fairness Trade-off in Fair Representation Learning — 2025+

Yijin Ni, Xiaoming Huo.

Honors and Awards

Graduate Student Travel Award, Georgia Tech	2023
Mentoring service award for SURE program, Georgia Tech	2022
Stewart Fellowship, Georgia Tech	2021
Outstanding Student Scholarship, University of Science and Technology of China	2017-2020

Talks

INFORMS Annual Meeting 2024 — Seattle, WA, October 2024

Talk: "A Concentration Inequality for Maximum Mean Discrepancy (MMD)-based Statistics and Its Application in Generative Models".

Joint Statistical Meetings 2024 — Portland, OR, August 2024

Talk: "A Concentration Inequality for Maximum Mean Discrepancy (MMD)-based Statistics and Its Application in Generative Models".

IISE Annual Conference and Expo 2024 — Montreal, Canada, May 2024

Talk: "A Concentration Inequality for Maximum Mean Discrepancy (MMD)-based Statistics and Its Application in Generative Models".

Georgia Statistics Day   Atlanta, GA, October 2022

Poster: "Sequential and Simultaneous Distance-based Dimension Reduction".

Teaching Experience

Instructor   Fall 2023

ISYE-6501: Intro to Analytics Modeling

Graduate Teaching Assistant   Spring 2023

ISYE-6402-A: Time Series Analysis

Mentor   Summer 2022

Summer Undergraduate Research Experience (SURE) Program

Service

Reviewer: NeurIPS 2025 and 2026, AISTATS 2025.

Outreach: Exam Writer and Grader, AP Statistics competition, Georgia Tech, 2024.