

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.

Inform's Journal on Computing, 35.5 (2023): 1044-1060.

Sequential and Simultaneous Distance-based Dimension Reduction January 2025

Yijin Ni, Chuanping Yu, Xiaoming Huo.

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

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

Yijin Ni, Xiaoming Huo.

The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NIPS 2025).

Preprints

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

Yijin Ni, Xiaoming Huo.

Abductive Preference Learning 2025+

Yijin Ni, Peng Qi.

Honors and Awards

Runner Up, 2025 Alice and John Jarvis Ph.D. Student Paper Competition 2023

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

2025 Summit on Responsible Computing, AI, and Society Atlanta, GA, October 2025

Poster: "Kernel-based Equalized Odds: A Quantification of Accuracy-Fairness Trade-off in Fair Representation Learning".

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.