

Nicholas Di

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EDUCATION

Rice University

PhD Statistics GPA: 3.9

Houston, TX, USA

Aug 2023 - May 2028 (Expected)

Macalester College

BA Economics (Honors), BA Applied Mathematics/Statistics GPA: 3.96

Saint Paul, MN, USA

Aug 2018 - Dec 2022

PUBLICATIONS

- **Di N.** 2022. Gendered labor market outcomes during COVID-19: Evidence from early withdrawal of Federal Pandemic Unemployment Compensation. *The Developing Economist*. (Won Best Undergraduate Paper Award)
[Paper Link](#) [News Link](#)

RESEARCH EXPERIENCE

PRS-RV Causal Pivot: A Segmentation Approach to Complex Disease Genetics

Advised by Dr. Chad Shaw (Baylor College of Medicine)

May 2024 - Aug 2024

- Developed a model categorizing diseases into four types using Polygenic Risk Scores (PRS) and rare variants (RV), showing that RV-PRS exclusion can aid in disease discovery
- Tested the model on UK Biobank data for hypercholesterolemia, breast cancer, and Alzheimer's disease, finding significant negative correlation between RV and PRS in affected individuals

Gendered Labor Market Outcomes During COVID-19

Advised by Dr. Amy Damon (Macalester College)

Jun 2022 - Aug 2022

- Conducted independent research on the gender-specific effects of the cessation of Federal Pandemic Unemployment Compensation during the COVID-19 pandemic
- Collected and analyzed data from the U.S. Census Bureau; collaborated with a Federal Reserve researcher to gain deeper insights and validate findings.

Causal Inference

Advised by Dr. Leslie Myint (Macalester College)

May 2019 - Aug 2019

- Created a causal diagram by building a correlation matrix through R and fed into Tetrad, a causal search program
- Conducted a meta-research study of cancer biological research using PLoS and Semantic MEDLINE abstract outputs

WORKING EXPERIENCE

Analyst

Ernst and Young, Quantitative Economics and Statistics, Washington D.C, USA

Jan 2023 - June 2023

- Collaborated with major environmental ESG (Environmental, Social, and Governance) consulting firms to evaluate, optimize, and elevate ESG scores for numerous corporate clients.
- Performed econometric and statistical, predictive forecasting, and fiscal impact modeling for business and government clients on a broad range of topics including relocation decisions, federal and state policy, tax, and vaccine distributions.

Research Assistant Intern

Brattle Group, Boston, USA

Jun 2022 - Aug 2022

- Supported leading academics in applying sophisticated econometric and statistical models to legal, regulatory, and policy issues.
- Utilized mathematical software to model and solve linear, nonlinear and mixed-integer optimization problems related to electricity demand.

Analyst Intern

Ernst and Young, Quantitative Economics and Statistics, Washington DC, USA

Jun 2021 - Aug 2021

- Developed and maintained comprehensive databases on Medicare cases and compliance with healthcare standards and regulations
- Worked on various projects related to economic policy analysis, impact analysis, survey design, and statistical sampling and analysis

Business Development Manager

NutriKarma, New York NY, USA

August 2020 - May 2021

- Expanded NutriKarma team by 11 employees and worked project management, specifically with app-wire flow, data sets, and marketing
- Conducted and ran meetings with potential angel investors, business partnerships, dietitians, and personal trainers

Business Analyst Intern

U.S. Bank, Minneapolis MN, USA

Jun 2020 - Aug 2020

- Facilitated projects regarding classification of product types for document custody services and preformed in-depth data and business analysis for automation of loan certification process

Business Data Analyst

Minnesota Association of Volunteer Administration, Minneapolis MN, USA

Oct 2018 - May 2019

- Wrote R-scripts to compute regression models regarding membership recruitment data for over 500 clients
- Developed outreach plans regarding local organizations and sponsorship, and updated internal resources for manager to keep information and schedules up to date

AWARDS

- **AAAS Annual Conference Statistics Travel Award** in AAAS - 2024
- **Dean's Prize** in Rice University - 2023-2025
- **Best Undergraduate Paper Award** in Midwest Economics Association Conference - 2022
- **Summa Cum Laude** in Macalester College - 2022
- **Phi Beta Kappa** in Macalester College - 2022
- **Deans List All Semesters** in Macalester College - 2018 - 2022

TEACHING ACTIVITIES

- **Rice University**
 - Teaching Assistant, STAT 425: Introduction to Bayesian Inference
 - Teaching Assistant, STAT 405/605: Data Science in R
- **Macalester College**
 - Teaching Assistant, COMP 123: Introduction to Computer Science
 - Teaching Assistant, STAT 155: Introduction to Statistical Modeling
 - Teaching Assistant, ECON 194: Calculus Based Principles of Economics
 - Teaching Assistant, STAT 253: Statistical Machine Learning
 - Supplemental Instructor, ECON 381: Econometrics

PRESENTATIONS

- **Spatial Analysis of Lead Levels in Twin Cities Metro Area** Capstone Seminar in Macalester College - 2022
- **Economics Independent Research** Midwest Economics Association - 2022
- **Causal Inference Research** Jr. Faculty-Hub Summer Research Fund Meeting, Macalester College - 2019

UNIVERSITY SERVICES

- **Statistics Student Seminar Organizer** Rice University - 2024
- **STAT 450 Project Judge** Rice University - 2022
- **Graduate Student Representative** Rice University - 2023