# Nishaad Rao

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## SUMMARY

Ph.D. Candidate in Economics with 5+ years of experience in empirical research, macroeconomic modeling, and data analysis. Proficient in Python, SQL, Stata, and statistical techniques, especially those of causal inference. Seeking to leverage quantitative skills to meet the needs of corporate clients.

## CORE COMPETENCIES

- **Technical Skills**: Machine Learning, Statistical Modeling, Data Querying, Event Study Analysis, Big Data, Automation, Macroeconomic Modeling, Model Validation, Forecasting, Data Visualization
- **Computational Skills**: Python, R, SQL, Matlab, Stata, Spark, R, Mathematica, MS Office, LaTeX
- **Personal Skills**: Project Management, Poster Presentation, Research Writing, Public Speaking
- **Language**: English, Hindi, Gujarati, Kannada

## PROJECT EXPERIENCE

- **Ph.D. Dissertator in Economics at University of Michigan**          *Fall 2018-present*
  - Generated key insights on the importance of homeownership and the influence of local markets on wealth distribution
  - Communicated findings effectively at various technical and non-technical seminars, receiving positive reviews
  - Applied difference-in-differences and event study analyses to establish causal relationships using survey data
  - Developed and validated a macroeconomic model in Python using optimization techniques, calibrating it to real-world data

- **Research Assistant at Institute for Social Research**          *Winter 2023-present*
  - Performed the first-ever matching of the 1970 U.S. Census to 1969 IRS tax records and Social Security (SSA) information, which involved hundreds of millions of observations
  - Communicated findings with employees of the U.S. Census Bureau to make the data more widely available to researchers
  - Awarded Special Sworn Status at the U.S. Census Bureau
  - Writing a technical paper comparing demographics in both Census and IRS tax records to provide researchers valuable feedback on the datasets

- **Research Assistant at Stone Center of Inequality Dynamics**

  **Project 1**          *Winter 2023-present*
  - Performed exploratory analysis to create a novel dataset of housing wealth distribution by neighborhood, leading to thousands of dollars of financial savings
  - Achieved an 80% efficiency gain by automating data cleaning and collection processes
  - Conducted comparative analysis on property and mortgage data samples from various data vendors using SQL
  - Built a financial model to automate mortgage amortization using publicly available interest rate datasets

  **Project 2**          *Summer 2021-Fall 2022*
  - Generated insights into local housing markets, informing policies like rental assistance and zoning regulations
  - Managed Zillow's ZTRAX dataset with over a billion observations using the Great Lakes computing cluster in Linux

&ndash; Created a novel panel of properties over time across the U.S., including assessed values and transaction history

&ndash; Developed an algorithm using Stata to automatically clean future versions of the data

· **Research Assistant for Panel Study of Income Dynamics (PSID)**    *Fall 2019 – Fall 2020*

&ndash; Presented novel 3-D visualizations of income, wealth, and consumption distributions to various researchers

&ndash; Assisted in projects involving inequality in consumption, income, and wealth across the U.S.

&ndash; Imputed missing data on household wealth using interpolation, logistic and linear regressions, and machine learning methods in Stata, Matlab, and Python

## EDUCATION

**University of Michigan, Ann Arbor, MI**

Ph.D., Economics      *Expected: 2023*

M.A., Economics      *2018*

**University of Wisconsin, Madison, WI**

M.S., Economics      *2016*

B.S. (Hon.), Economics and Physics      *2014*

## PUBLICATIONS AND WORKING PAPERS

**"The Intergenerational Wealth Effects of Local Labor Markets"** (Job Market Paper)

**"When the Going Gets Tough, the Wealthy Get Going: The Effects of Local Labor Demand Shocks on Migration"**

**"Caste Inequality Across Time and Space"** (with Arpit Gupta and Anup Malani)

**"Wealth and Mobility Study: Estimating Home Equity Across the United States"** (with Joe LaBriola, Sun Kyoung Lee, Pablo Mitnik, and Fabian Pfeffer)

**"Linking Census Records to the IRS: How Different Are They?"** (with Trent Alexander and Katie Genadek)

**"COVID-19 and Stay-At-Home Orders: Getting the Event Study Right"** (with Jaedo Choi, Elird Haxhiu, Thomas Helgerman, and Taeuk Seo), *COVID Economics 76 (2021): 110-137*

**"Updating the Geospatial Data in the PSID Restricted Data Enclave for 2005-2017"** (with David Johnson, Noura Insolera, and Mohammad Mushtaq)

## SELECTED PRESENTATIONS

· **2023**: Colgate University, Brattle Group

· **2022**: PSID Seminar (Institute for Social Research), Labor, Firms, and Macro Workshop (University of Pennsylvania)

· **2019**: PSID Annual User Conference (poster; ISR), 14th Meeting of the Urban Economics Association (Philadelphia Fed), Labor Lunch Seminar (Michigan)

## HONORS AND AWARDS

· William Haber Graduate Fellowship *(one awarded per year, Department-wide)*      *Winter 2022*

· James Morgan Award *(one awarded per year, University-wide)*      *Fall 2021*

· Rackham Graduate Student Research Grant, *$750*      *Winter 2018*

## AFFILIATIONS

· Research Assistant, Institute for Social Research, University of Michigan

· Student Fellow, Stone Center for Inequality Dynamics, University of Michigan