

# Nardeen Abdulkareem

Toronto, Ontario, Canada

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## Education

### Master of Arts, Economics, University of Toronto

Expected June 2026

- Coursework: Applied Causal Machine Learning; Econometrics; Micro & Macro Theory; Industrial Organization and Competition Policy; International Trade (PhD-level); Quantitative Macroeconomics (PhD); Empirical Applications of Economic Theory (PhD)

### Bachelor of Commerce (Honours), Toronto Metropolitan University

2021 — 2025

Major in Economics and Management Sciences, Graduated with Distinction

- GPA: 3.99/4.33
- Honors/Awards: Dean's List for Overall Academic Excellence
- Coursework: Mathematics for Economics II (A), Econometrics II (A+), Linear Algebra (A), Numerical Analysis (A-), Probability & Statistics II (A+), International Trade (A+), Environmental Economics (A-), Development Economics (A+), Advanced Microeconomics (A+), Classical & Political Philosophy (A+)

## Research Experience

### Research Assistant

May 2023 – Dec 2023

Dr. Rowan Shi, Toronto Metropolitan University

- Used R to analyzed cross sectional input-output tables and OECD data to measure gains due to abolishment of tariffs for firms in non-traded sectors in Brazil for an IMF working paper with Dr. Rafael Parente. Compiled information and a conducted literature review on international trade agreement related to Mercosur's for the Federal Reserve Bank of St. Louis
- Initiated early-stage research by collecting data through web-scraping, conducting a literature review of place based policy studies, and replicating empirical methods from relevant research with European Commissions project database. Used fixed-effects regressions to evaluated the effectiveness of place-based policy decisions vs. individual funding for small and medium-sized enterprises in 401 Germany counties. Designed maps with firm level data to aid in the visualization of qualitative findings such as the share of labor intensive industries across all German counties
- Supported Dr. Costas Arkolakis on an NBER working paper to visualize finding regarding firms' selection of plant location and resource allocation through a combinatorial discrete choices model for up to 128 countries. This includes, counterfactual exercise on trilateral data to measure the effect of shocks such as Brexit and Russian sanctions on multinational production (MP), trade volume, and MP costs. Assessing how the model matches the data. The differential effect of varying model specifications, such as different levels of complementarity between firms, on welfare, gains from trade, iceberg costs, and plant location selection outcomes. And, the role of gravitational attraction on the bilateral components of trade, and FDI of multinational firms

### Research Assistant

Oct 2025 – Present

Dr. Daniel Trefler, University of Toronto

- Conducting data analysis and large-scale dataset manipulation using Revelio Labs labor-market micro-data to identify and quantify the impact of artificial intelligence on global trade patterns

## Research Projects & Working Papers

### Who gets left behind? Do Women Disproportionally Benefits from the Jóvenes en Acción Vocational Training Program?

- Revisits Attanasio, Kugler, and Meghir 2011 to analyze heterogeneous effects through bleeding edge machine learning models to uncover whether women factually experience disproportionately larger gains in terms of labor market outcomes relative to men following participation in the program

- A Structural Equation Model captures simultaneous dependencies among variables rather than treating them as isolated predictors
- Implemented Ensemble Methods, Bayesian Additive Regression Tree, Propensity Score, Meta Learners, Doubly Robust Learners, Double Machine Learning, Causal Forrest, Conditional Average Treatment Effects, and Cross Validation of results through Bootstrapping

### **Measuring Misspecification of Placed Based Policy.**

- Independent research project extended from RA work on European Union's European Regional Development Fund place-based policy in Eastern and Western Germany
- Uses input-output tables and data on Cohesion funding with Machine-Learning models to flexibly measure misspecification in the allocation of funding to small to medium sized enterprise

### **Teaching Experience**

#### **University of Toronto, Teaching Assistant**

Sept 2025 – Present

- ECO204 (Intermediate Microeconomic Theory and Applications): Conducted weekly tutorials, held one-on-one office hours, and marked term tests and exams for over 180 students

#### **Toronto Metropolitan University, Teaching Assistant**

Sept 2024 – May 2025

- ECN230 (Mathematics for Economics II), ECN104 (Intro to Microeconomics), and ECN201 (Intro to Macroeconomics): Conducted weekly tutorials, prepared lecture materials, held one-on-one office hours, and marked problem sets for over 500 students

### **Professional Experience**

#### **Seller King, Mississauga, Ontario, Canada**

May 2024 – Present

- Used R to deploy a dynamic predictive pricing algorithm which increased monthly revenue by 18%
- Built automated dashboards to integrate real-time data from 250,000 to optimize prices and costs
- Developed a multi-channel inventory management system, to achieve revenue of \$87,000 in four months
- Implemented cost cutting efforts by reducing aged inventory surcharges at fulfillment centers by 28%

#### **CATALYST Oil Services, Sulaymaniyah, Kurdistan**

May 2024 – May 2025

##### Junior Economic Consultant

- Conducted economic feasibility study of solar energy by estimating supply and demand elasticities using defensive expenditure modeling. Delegated suppliers of CSP equipment and PV panels, and prepared analytical briefings to senior management

### **Extracurricular Activities**

#### **KWiK Tutoring, Learning Innovation Fellow** – Tutoring fifth grade TDSB students

2024

#### **Canadian Economics Association** – Student Volunteer at the annual meeting

2024

#### **Ted Rogers ACE** – Director of Delegate Development

2023

### **Personal Skills**

**Statistical Modeling:** Structural Models, Meta Learners, Random Forrest's, Ensemble Methods, DML, Doubly Robust Learners, XGBoost, Heterogeneous Treatment Effects, GMM, MLE, Causal Forrest, Deep IV, Inverse Probability Weighting, LASSO & Ridge, Quantile Regressions, FE, DiD, Dynamic Panels, ARMA, Neural Networks, VAR, DAG

**Programming:** R, Python, MATLAB, STATA, LaTeX, SQL, Julia, VS Code, Git, Overleaf, Excel, ggplot2, EconML, matplotlib, numpy, pandas

**Languages:** Fluent in English, Arabic, and Kurdish

**Citizenship:** Canadian

**Interests:** Music, Reading, Intramural Volleyball, Tennis, Traveled 15 Countries, Stock Picking, Hiking