

# Nardeen Abdulkareem

Toronto, Ontario, Canada

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## Education

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**Master of Arts, Economics, University of Toronto** Expected June 2026

- Coursework: Applied Causal Machine Learning; Econometrics; Micro & Macro Theory; Industrial Organization and Competition Policy; Research Paper Capstone; International Trade (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.
- Selected Coursework: Econometrics II (A+), Probability & Statistics II (A+), International Trade (A+), Development Economics (A+), Advanced Microeconomics (A+).

## Research Experience

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**Research Assistant** May 2023 – Present

Rowan Shi, & Rafael Parente - Toronto Metropolitan University (TMU), Princeton University, IMF

- Implemented qualitative and regression analysis in R on input-output tables and various OECD datasets for a IMF working paper to quantify gains from tariffs elimination for firms in Brazil's non-traded sectors.
- Compiled information, and conducted a literature review on international trade agreement related to Mercosur to be presented to the Federal Reserve Bank of St. Louis.

Rowan Shi, Fabian Trottner, & Paula Donaldson - TMU, University of California San Diego (UCSD)

- Initiated early-stage research by collecting, harmonizing, and constructing data sourced from the European Commission, OECD, and through web-scraping in order to develop a novel rationale for national place-based policies based on imperfect competition in local labour markets.
- Estimated fixed-effects models on firm level data and designed spatial visualizations to quantify the impact of funding on welfare outcomes, sectoral labour intensity, and regional heterogeneity in productivity.
- Performed a detailed literature review of place based policy studies, and replicated related empirical methods with collected data.

Rowan Shi, Costas Arkolakis, & Fabian Eckert - TMU, UCSD, Yale University

- Supported a NBER working paper through empirical validation, and preparing figures for a combinatorial discrete choices model of multinational production and plant location selection across 128 countries.
- Evaluated the match between counter-factual simulations and non-experimental data by measuring the effects of Brexit and Russian sanctions on trade flows, multinational firm production costs, and welfare.
- Measured results of varying model specifications, such as alternative assumptions on firm complementarity, on welfare, gains from trade, iceberg costs, and location choice.

Daniel Treffer, University of Toronto

- Conducted large-scale data analysis using Revelio Labs labor-market micro data to quantify the impact of artificial intelligence adoption on global trade and firm behaviour.

## Research Projects

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**Who Gets Left Behind? Do Women Disproportionally Benefit from Vocational Training Programs in Colombia?**

- Revisits Attanasio, Kugler, and Meghir 2011 to determine whether women experience disproportionately larger gains in employment and earnings relative to men following program participation.
- Documenting gender-differentiated impacts and refining the methods used to measure how models capture the direct and indirect effect on outcomes.

- Uses structural equation modelling, propensity scores, doubly robust learners, double machine learning, and causal forests to provide evidence that heterogeneous gains experienced by female participants lifts them to the level of men in the control group.

### **Evaluating Welfare Effects of Place-Based Policy Using Regional Variation in Eastern and Western Germany**

- Extends previous RA work to provides a positive analysis of the welfare effects generated by the European Regional Development Fund, an instrument for delivering place based policy in Germany.
- Extends existing empirical work by implementing machine learning models, such as causal forests, to estimate heterogeneous treatment effects and capture fine regional variation in outcomes.

### **Teaching Experience**

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**University of Toronto, Teaching Assistant** Sept 2025 – Present

- ECO204 (Intermediate Micro Theory and Applications), and ECO102 (Principles of Macro): Led weekly tutorials, held office hours, and graded exams for over 180 students

**Toronto Metropolitan University, Undergraduate Teaching Assistant** Sept 2024 – May 2025

- ECN230 (Mathematics for Economics II), ECN104 (Intro to Micro), and ECN201 (Intro to Macro): Conducted tutorials, prepared lecture material, held office hours, and grading for 500+ students

### **Professional Experience**

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**Seller King, Mississauga, Ontario, Canada** May 2024 – Present

Pricing Specialist

- Designed and deployed a dynamic pricing algorithm in R, increasing monthly revenue by 18%.
- Developed a multi-channel inventory management system, generating \$87,000 in sales within four months.
- Reduced aged inventory surcharges at fulfilment centres by 28%.

**CATALYST Oil Services, Sulaymaniyah, Kurdistan** May 2024 – May 2025

Junior Economic Consultant

- Conducted economic feasibility analysis for solar energy investment, estimating supply and demand elasticities using defensive expenditure models.
- Evaluated PV panels, and battery storage suppliers for analytical briefings to senior management.

### **Technical Skills**

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**Econometrics & Causal Inference:** Structural Modelling, Generalized Method of Moments (GMM), Maximum Likelihood Estimation (MLE), Instrumental Variables (IV), Quantile Regressions, Fixed Effects, Difference-in-Differences, Dynamic Panels, Time Series Forecasting.

**Machine Learning:** Neural Networks, Causal Forests, Meta Learners, Random Forest's, Double Machine Learning, Doubly Robust Learners, Gradient Boosting (XGBoost), Cross-Validation, Bootstrapping.

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

### **Personal Skills**

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

**Citizenship:** Canadian.

**Interests:** Applied policy research, International Trade, Industrial Organization, Music, Reading, Intramural Volleyball, Tennis, Travelled 15 Countries, Stock Picking, Hiking.