

# Mustafa Koroglu, Ph.D.

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koroglu4943@yahoo.com • +1 226-600-8278 • [www.linkedin.com/in/mustafakoroglu](http://www.linkedin.com/in/mustafakoroglu)  
104-78 College Avenue West • N1G 4S7 • Guelph • Ontario • Canada

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## Summary

*I have recently graduated from Ph.D. in economics from University of Guelph. I have worked on an application of non-/semiparametric regression estimation methods using macroeconomic datasets. I have a good experience in econometric analysis of economic policy questions. I have a strong academic training and experience with statistical learning methods through taking graduate statistics courses at the University of Guelph and working on my two research papers. I have a bachelor degree in mathematics, which gives me a strong background in pursuing my career in econometrics. I am currently a fellow at NYC Data Science Academy bootcamp program.*

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## Data Science Project Experiences

NYC Data Science bootcamp program is a highly immersive data science program involving data strategy and hands on expertise on machine learning, big data, advanced statistics and analytics, R and Python development, visualization, Unix, SQL, and Git/GitHub.

- In my first project, I developed a dashboard using R and Shiny, mapping child care centres in City of Toronto and visualizing providers of child care fee subsidy for each district. My blog post and GitHub repository can be reached [here](#).
  - I am currently working on my second project, scraping data from tripadvisor.ca for exploration of customer reviews for major airlines. I am using Python in this project.
  - I will be working on two machine learning projects.
  - I have an experience with using version control system like Git and GitHub and relational databases including MySQL.
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## Research Experience

Functional-Coefficient Spatial Durbin Model with Nonparametric Spatial Weights: An Application to Economic Growth. *Econometrics Vol 4, Article 6, 1-16, 2016, Special Issue on Nonparametric Methods in Econometrics.* (With Yiguo Sun). Published version can be found [here](#).

- I conducted Monte Carlo simulation exercise and obtained estimation results using R.
- I apply series approximation method, and estimate the unknown functional coefficients and spatial weighting functions via a nonparametric two-stage least squares (or 2SLS) estimation method.
- I used build-in commands in R for regression estimations, wrote codes for cross-validation bandwidth selection and bootstrap replications.

Growth and Debt: An Endogenous Smooth Coefficient Approach

- I employed varying coefficient instrumental variable approach to re-investigate the relationship between public debt and economic growth.
- I wrote R code to obtain the estimation results and wild bootstrap standard errors.
- I find surprisingly strong evidence of adverse effect of public debt on growth for countries with high institutional quality.

I conducted time-series analysis of financial and macroeconomic series using R in empirical finance and financial econometrics course in Winter 2016.

I prepared high dimensional panel data set for Professor Yiguo Sun writing code in R. Fall 2016.

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## Education

University of Guelph	GUELPH, ONTARIO, CANADA
<b>Ph.D. in Economics</b>	2012 – 2017
Dissertation title: “Semiparametric Applications in Economic Growth”	
Supervisor: Professor Thanasis Stengos	
Marmara University	ISTANBUL, TURKEY
<b>M.A. in Economics</b>	2009 – 2012
Middle East Technical University	ANKARA, TURKEY
<b>B.S. in Mathematics</b>	2004 – 2009

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## Skills

**Computer skills:** R, Python, MySQL, Stata, LaTeX

**Natural languages:** Turkish (*mother tongue*), English (*full professional proficiency*), German (*basic working proficiency*)

## Conference Presentations

- The 8th Midwest Graduate Student Summit, Purdue University, April 11-12, 2015
  - 3rd Annual Doctoral Workshop in Applied Econometrics, Ryerson University, May 9, 2015
  - 49th Annual Conference of the Canadian Economics Association (CEA), Ryerson University, May 29-31, 2015
  - 32nd Meeting of the Canadian Econometric Study Group (CESG), University of Guelph, September 26-27, 2015 (poster presentation)
  - The 13th Biennial Athenian Policy Forum Conference, Athens University of Economics and Business, Greece, July 7-9, 2016
  - 33rd Meeting of the Canadian Econometric Study Group (CESG), Western University, October 15-16, 2016 (participant)
  - 51th Annual Conference of the Canadian Economics Association (CEA), St Francis Xavier University, June 2-4, 2017
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## Scholarships and Awards

- Graduate Scholarship in Economics, University of Guelph, 2012-present
  - High Honor Degree, Middle East Technical University, 2007 and 2008
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## Nationality

- Turkey, Canada (permanent residency)