




## Omer Kara

## Curriculum Vitæ

<b>CONTACT INFORMATION</b>	Eskisehir Osmangazi University College of Economics and Administrative Sciences Department of Economics, Office A1-21 Eskisehir, 26040 Turkey	☎ : +90 (539) 794-0221 ✉ : omer.kara.ylsy@gmail.com A : i :
<b>RESEARCH INTERESTS</b>	<b>Primary:</b> Data Science, Time Series Econometrics, Spatial Econometrics, Cryptoeconomics <b>Secondary:</b> Agricultural Economics, Applied Microeconomics, Applied Macroeconomics	
<b>INDUSTRY INTERESTS</b>	<b>Primary:</b> Data Scientist, Econometrician, Consultant <b>Secondary:</b> Quantitative Analyst, Software Developer	
<b>ACADEMIC APPOINTMENTS</b>	<b>Faculty Member, Ph.D.</b> Department of Economics Eskisehir Osmangazi University, Eskisehir, Turkey  <b>Postdoctoral Researcher</b> Department of Economics North Carolina State University, Raleigh, NC, USA	January 2019 – Present    May 2018 – August 2018
<b>EDUCATION</b>	<b>Ph.D., Economics</b> North Carolina State University, Raleigh, NC, USA • Dissertation: <i>Three Essays in Applied Spatial and Time Series Econometrics</i> • Advisor: Professor Barry Goodwin • Area of Study: Time Series Econometrics and Spatial Econometrics  <b>M.S., Agricultural and Resource Economics</b> North Carolina State University, Raleigh, NC, USA  <b>B.A., Economics</b> Bahcesehir University, Istanbul, Turkey	May 2018      August 2012  July 2008
<b>INDUSTRY EXPERIENCE</b>	<b>Software Developer</b> CHS Inc., Inver Grove Heights, MN, USA • Job: Building the “Crack Spread Platform”, a shiny web app (in progress) • Tools: R, R Markdown, shiny, HTML, CSS, Azure DevOps, Git, ETL, EDA  <b>Software Developer</b> CHS Inc., Inver Grove Heights, MN, USA • Job: Building the “Hog Crush Platform”, a shiny web app (in marketing) • Tools: R, R Markdown, shiny, HTML, CSS, Azure DevOps, Git, ETL, EDA  <b>Data Scientist</b> The World Bank, Washington, DC, USA • Job: Sierra Leone CEM - Agriculture Sector Deep Dive • Tools: FAOSTAT, R, R Markdown, ETL, EDA  <b>Data Scientist and Econometrician</b> CHS Inc., Inver Grove Heights, MN, USA • Job: Churn Loss Analysis • Tools: Statistics, Econometrics, Machine Learning, R, R Markdown, ETL, EDA	January 2022 – Present      August 2021 – Present      June 2023 – December 2023   July 2022 – January 2023

**REFEREED  
JOURNAL  
PUBLICATIONS**

- [1] Acaroglu, H., Najafi, A., **Kara, O.**, and Yuruk, B., (2021). AN ECONOMIC AND TECHNICAL REVIEW FOR THE UTILIZATION OF HVDC IN TURKEY AND IN THE WORLD. *Konya Journal of Engineering Sciences*, 9(3) 809-835. 

**CONFERENCE  
PRESENTATIONS**

- [1] **Kara, O.**, Price Dynamics and Structural Breaks in Speculative Markets: A Case Study of Cryptocurrency. International Conference on Economics (EconTR2020@Eskişehir), Eskişehir, Turkey, 10-12 September 2020.
- [2] **Kara, O.**, Identifying and Understanding the Structural Break in Meat Demand in the USA. International Conference on Economics (EconTR2020@Eskişehir), Eskişehir, Turkey, 10-12 September 2020.

**OTHER  
PUBLICATIONS**

- [1] **Kara, O.**, (2018). Emek Piyasası, İstihdam ve İşsizlik. MAKROEKONOMİ Politika ve Uygulama (pp.544-570), Ankara: Nobel Yayın Dağıtım. *Book Chapter Translation*.

**WORKING  
PAPERS**

- “Dynamics of U.S. Housing and Primary Building Materials in the Presence of Structural Break” with [Barry Goodwin](#) and [Jeffrey Prestemon](#)
- “The Impact of Religion on Environmental Performance: Applied Spatial Econometrics”
- “Price Dynamics and Structural Breaks in Speculative Markets: A Case Study of Cryptocurrency”
- “Structural Break in U.S. Meat Demand: Evidence from LA/AIDS Model”
- “The Effect of Quality of Institutions on Agricultural Productivity”

**WORKS IN  
PROGRESS**

- “Price Dynamics Between Cryptocurrency, Fiat Money, Stocks, Gold, and OIL: Before and After COVID-19”
- “Impacts of Quality of Institutions on Income”
- “Economic Consequences of Foreign Player Restriction in European Soccer Leagues”

**ACADEMIC  
SERVICE****Erasmus Coordinator**

January 2019 – Present

Department of Economics

Eskişehir Osmangazi University, Eskişehir, Turkey

**Referee Service**

- Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi

**WORKSHOPS  
GIVEN****Shiny mini BootCamp**

May 2024

Department of Business and Quantitative Studies

University of Naples Parthenope, Naples, Italy

- During the Erasmus+ KA131 Teaching Mobility program.
- Two days of Shiny bootcamp given to undergraduate students in [Dr. De Luca's](#) lecture.
- Developed and lectured theoretical teaching materials and hands on application files.
- Detailed Information: [Shiny mini BootCamp](#)

**R mini BootCamp**

February 2018

Department of Economics

North Carolina State University, Raleigh, NC, USA

- Three days of R bootcamp given to undergraduate students in NCSU.
- Developed and lectured theoretical teaching materials and hands on application files.
- Detailed Information: [R mini BootCamp](#)

**TECHNICAL  
SKILLS**

- **Programming:** R, Python, SQL, SAS, MATLAB, GAUSS
- **Data Science:** Statistics, Econometrics, Machine Learning, [Web Scraping](#), ETL, EDA
- **GIS:** Geo-Spatial Data, [ArcGIS](#), [QGIS](#), [GeoDa](#)
- **Digital Typesetting:** [L<sup>A</sup>T<sub>E</sub>X](#), Markdown
- **Other Skills:** R Markdown, shiny, Shell, Git, Azure DevOps, Reproducible Research

<b>CERTIFICATIONS AND CERTIFICATES</b>	<b>Certifications</b>	
	<ul style="list-style-type: none"> <li>• <a href="#">Data Scientist Associate Certification, DataCamp</a>  January 2023 – January 2025</li> </ul>	
	<b>Certificates</b>	
	*Only selected certificates are shown. More information can be found on my web site.	
	<ul style="list-style-type: none"> <li>• <a href="#">Data Scientist Professional with R, DataCamp</a></li> <li>• <a href="#">Data Scientist with R, DataCamp</a></li> <li>• <a href="#">Data Analyst with R, DataCamp</a></li> <li>• <a href="#">R Programmer, DataCamp</a></li> <li>• <a href="#">Data Scientist with Python, DataCamp</a></li> <li>• <a href="#">Data Analyst with Python, DataCamp</a></li> <li>• <a href="#">Python Programmer, DataCamp</a></li> <li>• <a href="#">Statistical Inference, Coursera</a></li> <li>• <a href="#">Reproducible Research, Coursera</a></li> <li>• <a href="#">Exploratory Data Analysis, Coursera</a></li> <li>• <a href="#">Getting and Cleaning Data, Coursera</a></li> <li>• <a href="#">R Programming, Coursera</a></li> <li>• <a href="#">The Data Scientist's Toolbox, Coursera</a></li> <li>• <a href="#">Maps and the Geospatial Revolution, Coursera and PennState</a></li> <li>• <a href="#">SAS Programming 2: Data Manipulation Techniques, SAS</a></li> <li>• <a href="#">SAS Programming 1: Essentials, SAS</a></li> <li>• <a href="#">SAS Programming Introduction: Basic Concepts, SAS</a></li> </ul>	
<b>SCHOLARSHIPS FELLOWSHIPS HONORS AND AWARDS</b>	• <b>Graduate Research Assistantship</b>	August 2016 – January 2017
	<a href="#">North Carolina State University, Raleigh, NC, USA</a>	
	• <b>Graduate Teaching Assistantship</b>	August 2013 – May 2018
	<a href="#">North Carolina State University, Raleigh, NC, USA</a>	
	• <b>Scholarship for Graduate Education in the U.S.</b>	August 2010 – August 2017
	<a href="#">Ministry of National Education, Ankara, Turkey</a>	
	Full-tuition scholarship including stipend, health insurance, and travel expenses.	
	• <b>Grant for Outstanding Academic Performance</b>	September 2005 – June 2007
	<a href="#">Bahcesehir University, Istanbul, Turkey</a>	
	Stipend for attaining a GPA of at least 3.8 for four semesters.	
	• <b>Scholarship for Undergraduate Education</b>	September 2003 – June 2008
	<a href="#">Bahcesehir University, Istanbul, Turkey</a>	
	Full-tuition scholarship including stipend.	
<b>RESEARCH EXPERIENCE</b>	<b>Postdoctoral Researcher</b>	May 2018 – August 2018
	<a href="#">Department of Economics</a> <a href="#">North Carolina State University, Raleigh, NC, USA</a>	
	<ul style="list-style-type: none"> <li>• Project Details: <ul style="list-style-type: none"> <li>- Funding: <a href="#">USDA Forest Service</a></li> <li>- Supervisor: <a href="#">Professor Barry Goodwin</a> and <a href="#">Professor Jeffrey Prestemon</a></li> <li>- Project Title: “Understanding Global Forest Product Market Effects of Trade Measures to Address Illegal Wood Fiber Sourcing”</li> </ul> </li> <li>• Created a collaborative reproducible research environment using <a href="#">Git</a>, <a href="#">R</a>, <a href="#">R Markdown</a>.</li> <li>• Accelerated data collection/cleaning and statistical/exploratory data analysis steps with flexible user-written R functions and check procedures.</li> </ul>	
	<b>Research Assistant</b>	August 2016 – January 2017
	<a href="#">Department of Economics</a> <a href="#">North Carolina State University, Raleigh, NC, USA</a>	

- Project Details:
  - Funding: [North Carolina State University](#)
  - Supervisor: [Professor Barry Goodwin](#)
  - Project Title: “Dynamics of U.S. Housing and Primary Building Materials in the Presence of Structural Breaks”
- Created a conceptual framework, collected data in a reproducible way, and performed a through econometric analyses on [R](#) and [GAUSS](#).

## TEACHING EXPERIENCE

### Independent Instructor

January 2019 – Present

Department of Economics

[Eskisehir Osmangazi University](#), [Eskisehir](#), Turkey

- Created course design, lecture format, course materials, and online assessment materials.
- Authored course materials are available at the [Akademi Ekonometri Web Site](#).
- Course videos are available on [Akademi Ekonometri YouTube Channel](#).
- Courses in English: Economics
- Courses in Turkish: Econometrics I, Econometrics II, Econometrics, Time Series Analysis, Econometric Research I, Econometric Research II, Economics, Introduction to Economics I, Econometric Modelling and Time Series Analysis - Masters, Financial Econometrics - Masters, Semester Project - Masters

### Teaching Assistant

January 2017 – May 2018

Department of Economics

[North Carolina State University](#), [Raleigh](#), NC, USA

- Assisted [Dr. Margolis](#) and [Dr. Fiori](#) with grading assignments and exams.
- Courses: Intermediate Microeconomics, Macro Fundamentals

### Independent Instructor

August 2014 – May 2016

Department of Economics

[North Carolina State University](#), [Raleigh](#), NC, USA

- Created course design, lecture format, and assessment materials.
- Developed and lectured course materials.
- Mentored students providing individualized learning support and online assignments.
- Courses: Fundamentals of Economics, Principles of Microeconomics

### Teaching Assistant

August 2013 – May 2014

Department of Economics

[North Carolina State University](#), [Raleigh](#), NC, USA

- Assisted [Dr. Hyman](#) as head teaching assistant and lab instructor.
- Developed and lectured lab materials independently.
- Improved students’ performance by implementing a collaborative learning environment.
- Courses: Fundamentals of Economics

## LANGUAGES

- English (C2 Proficiency - fluent)
- Turkish (native)

## POPULAR MEDIA

- Founder of [Akademi Ekonometri Website](#) and [Akademi Ekonometri YouTube Channel](#).

## MORE INFORMATION

More information and auxiliary documents can be found on [my web site](#).

## REFERENCES

### Dr. Barry Goodwin

William Neal Reynolds Distinguished Professor  
Agricultural and Resource Economics  
North Carolina State University  
Raleigh, NC 27695-8109

☎ : +1 (919) 515-4620

✉ : [bkgoodwi@ncsu.edu](mailto:bkgoodwi@ncsu.edu)

👤 : Dr. Goodwin was my graduate advisor and post doctoral supervisor.

### Dr. Walter Thurman

William Neal Reynolds Distinguished Professor  
Agricultural and Resource Economics  
North Carolina State University  
Raleigh, NC 27695-8109

☎ : +1 (919) 515-4545

✉ : [wally\\_thurman@ncsu.edu](mailto:wally_thurman@ncsu.edu)

👤 : Dr. Thurman was a member of my doctoral committee.

### Dr. Jeffrey Prestemon

Adjunct Professor  
Forestry and Environmental Resources  
North Carolina State University  
Raleigh, NC 27695-8109

☎ : +1 (919) 549-4033

✉ : [jprestemon@fs.fed.us](mailto:jprestemon@fs.fed.us)

👤 : Dr. Prestemon was a member of my doctoral committee.

\*More references are available upon request.