



## 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       May 2012   June 2008
<b>INDUSTRY EXPERIENCE</b>	<b>Data Scientist and Econometrician</b> CHS Inc., Inver Grove Heights, MN, USA • Job: Churn Loss Analysis (in progress) • Tools: Statistics, Econometrics, Machine Learning, R, R Markdown, ETL, EDA  <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	July 2022 – Present      January 2022 – Present      August 2021 – Present
<b>RESEARCH EXPERIENCE</b>	<b>Postdoctoral Researcher</b> Department of Economics North Carolina State University, Raleigh, NC, USA • Project Details: - Funding: USDA Forest Service - Supervisor: Professor Barry Goodwin and Professor Jeffrey Prestemon	May 2018 – August 2018

- Project Title: “Understanding Global Forest Product Market Effects of Trade Measures to Address Illegal Wood Fiber Sourcing”
- Created a collaborative reproducible research environment using [Git](#), [R](#), [R Markdown](#).
- Accelerated data collection/cleaning and statistical/exploratory data analysis steps with flexible user-written [R](#) functions and check procedures.

#### Research Assistant

August 2016 – January 2017

Department of Economics

North Carolina State University, Raleigh, NC, USA

- 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](#), [Time Series Analysis](#), [Econometric Research I](#), [Econometric Research II](#), [Economics](#), [Introduction to Economics](#), [Econometrics](#), [Econometric Modelling and Time Series Analysis - Masters](#), [Financial Econometrics - 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](#)

#### 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> <p>*Only selected certificates are shown. More information can be found on my web site.</p> <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>	<ul style="list-style-type: none"> <li>• <b>Graduate Research Assistantship</b> August 2016 – January 2017 <a href="#">North Carolina State University, Raleigh, NC, USA</a></li> <li>• <b>Graduate Teaching Assistantship</b> August 2013 – May 2018 <a href="#">North Carolina State University, Raleigh, NC, USA</a></li> <li>• <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.</li> <li>• <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.</li> <li>• <b>Scholarship for Undergraduate Education</b> September 2003 – June 2008 <a href="#">Bahcesehir University, Istanbul, Turkey</a> Full-tuition scholarship including stipend.</li> </ul>
<b>REFEREED JOURNAL PUBLICATIONS</b>	<p>[1] <b>Kara, O.</b>, Acaroglu, H., Najafi, A., and Yuruk, B., (2021). AN ECONOMIC AND TECHNICAL REVIEW FOR THE UTILIZATION OF HVDC IN TURKEY AND IN THE WORLD. <i>Konya Journal of Engineering Sciences</i>, 9(3) 809-835. </p>
<b>CONFERENCE PRESENTATIONS</b>	<p>[1] <b>Kara, O.</b>, 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.</p> <p>[2] <b>Kara, O.</b>, Identifying and Understanding the Structural Break in Meat Demand in the USA. International Conference on Economics (EconTR2020@Eskişehir), Eskişehir, Turkey, 10-12 September 2020.</p>
<b>OTHER PUBLICATIONS</b>	<p>[1] <b>Kara, O.</b>, (2018). Emek Piyasası, İstihdam ve İşsizlik. MAKROEKONOMİ Politika ve Uygulama (pp.544-570), Ankara: Nobel Yayın Dağıtım. <i>Book Chapter Translation</i>.</p>

<b>WORKING PAPERS</b>	<ul style="list-style-type: none"><li>• “Dynamics of U.S. Housing and Primary Building Materials in the Presence of Structural Break” with <a href="#">Barry Goodwin</a> and <a href="#">Jeffrey Prestemon</a></li><li>• “The Impact of Religion on Environmental Performance: Applied Spatial Econometrics”</li><li>• “Price Dynamics and Structural Breaks in Speculative Markets: A Case Study of Cryptocurrency”</li><li>• “Structural Break in U.S. Meat Demand: Evidence from LA/AIDS Model”</li><li>• “The Effect of Quality of Institutions on Agricultural Productivity”</li></ul>
<b>WORKS IN PROGRESS</b>	<ul style="list-style-type: none"><li>• “Price Dynamics Between Cryptocurrency, Fiat Money, Stocks, Gold, and OIL: Before and After COVID-19”</li><li>• “Impacts of Quality of Institutions on Income”</li><li>• “Economic Consequences of Foreign Player Restriction in European Soccer Leagues”</li></ul>
<b>ACADEMIC SERVICE</b>	<div><div><b>Erasmus Coordinator</b> Department of Economics Eskisehir Osmangazi University, Eskisehir, Turkey</div><div>January 2019 – Present</div></div> <div><b>Referee Service</b><ul style="list-style-type: none"><li>• Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi</li></ul></div>
<b>LANGUAGES</b>	<ul style="list-style-type: none"><li>• English (C2 Proficiency - fluent)</li><li>• Turkish (native)</li></ul>
<b>POPULAR MEDIA</b>	<ul style="list-style-type: none"><li>• Founder of <a href="#">Akademi Ekonometri Website</a> and <a href="#">Akademi Ekonometri YouTube Channel</a>.</li></ul>
<b>MORE INFORMATION</b>	More information and auxiliary documents can be found on <a href="#">my web site</a> .

## 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.