

Curriculum Vitæ

CONTACT Eskisehir Osmangazi University : +90 (539) 794-0221

RESEARCH Primary: Data Science, Time Series Econometrics, Spatial Econometrics, Cryptoeconomics **INTERESTS Secondary:** Agricultural Economics, Applied Microeconomics, Applied Macroeconomics

IndustryPrimary: Data Scientist, Econometrician, ConsultantInterestsSecondary: Quantitative Analyst, Software Developer

ACADEMIC Faculty Member, Ph.D. January 2019 – Present

APPOINTMENTS Department of Economics

Eskisehir Osmangazi University, Eskisehir, Turkey

Postdoctoral Researcher May 2018 - August 2018

Department of Economics

North Carolina State University, Raleigh, NC, USA

EDUCATION Ph.D., Economics May 2018

North Carolina State University, Raleigh, NC, USA

• Dissertation: Three Essays in Applied Spatial and Time Series Econometrics a

• Advisor: Professor Barry Goodwin

• Area of Study: Time Series Econometrics and Spatial Econometrics

M.S., Agricultural and Resource Economics May 2012

North Carolina State University, Raleigh, NC, USA

B.A., Economics June 2008

Bahcesehir University, Istanbul, Turkey

Industry Data Scientist June 2023 - Present

EXPERIENCE The World Bank, Washington, DC, USA

• Job: Sierra Leone CEM - Agriculture Sector Deep Dive (in progress)

• Tools: FAOSTAT, R, R Markdown, ETL, EDA

Data Scientist and EconometricianJuly 2022 – Present

CHS Inc., Inver Grove Heights, MN, USA

• Job: Churn Loss Analysis (in progress)

• Tools: Statistics, Econometrics, Machine Learning, R, R Markdown, ETL, EDA

Software Developer January 2022 – Present

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

Software Developer August 2021 – Present

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

RESEARCH EXPERIENCE

Postdoctoral Researcher

May 2018 - August 2018

Department of Economics

North Carolina State University, Raleigh, NC, USA

- Project Details:
 - Funding: USDA Forest Service
 - Supervisor: Professor Barry Goodwin and Professor Jeffrey Prestemon
 - 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, 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, SOL, SAS, MATLAB, GAUSS
- Data Science: Statistics, Econometrics, Machine Learning, Web Scraping, ETL, EDA
- GIS: Geo-Spatial Data, ArcGIS, QGIS, GeoDa
- Digital Typesetting: LATEX, Markdown
- Other Skills: R Markdown, shiny, Shell, Git, Azure DevOps, Reproducible Research

CERTIFICATIONS AND

CERTIFICATES

Certifications

Data Scientist Associate Certification, DataCamp (1)

January 2023 - January 2025

*Only selected certificates are shown. More information can be found on my web site.

- Data Scientist Professional with R, DataCamp
- Data Scientist with R, DataCamp
- Data Analyst with R, DataCamp
- R Programmer, DataCamp
- Data Scientist with Python, DataCamp
- Data Analyst with Python, DataCamp
- Python Programmer, DataCamp
- Statistical Inference, Coursera
- Reproducible Research, Coursera
- Exploratory Data Analysis, Coursera
- · Getting and Cleaning Data, Coursera
- R Programming, Coursera
- The Data Scientist's Toolbox, Coursera
- Maps and the Geospatial Revolution, Coursera and PennState
- SAS Programming 2: Data Manipulation Techniques, SAS
- SAS Programming 1: Essentials, SAS
- SAS Programming Introduction: Basic Concepts, SAS

SCHOLARSHIPS FELLOWSHIPS **Honors** AND AWARDS

• Graduate Research Assistantship

August 2016 - January 2017

August 2013 - May 2018

North Carolina State University, Raleigh, NC, USA

Graduate Teaching Assistantship

North Carolina State University, Raleigh, NC, USA

• Scholarship for Graduate Education in the U.S. August 2010 - August 2017 Ministry of National Education, Ankara, Turkey Full-tuition scholarship including stipend, health insurance, and travel expenses.

• Grant for Outstanding Academic Performance September 2005 – June 2007 Bahcesehir University, Istanbul, Turkey Stipend for attaining a GPA of at least 3.8 for four semesters.

• Scholarship for Undergraduate Education Bahcesehir University, Istanbul, Turkey

September 2003 - June 2008

Full-tuition scholarship including stipend.

REFEREED **JOURNAL PUBLICATIONS** [1] Kara, O., Acaroglu, H., Najafi, A., 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), Eskisehir, 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), Eskisehir, 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

SERVICE Department of Economics

Eskisehir Osmangazi University, Eskisehir, Turkey

Referee Service

• Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi

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

८: +1 (919) 515-4620 **№**: bkgoodwi@ncsu.edu

1: 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

1: 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 **②** : jprestemon@fs.fed.us

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

^{*}More references are available upon request.