

Jonathon Carrasco

ECONOMIST · DATA SCIENTIST

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Summary

I have 10 years of experience of working with data in finance, economics, and medicine. Each of these fields has exposed me to a variety of statistical and econometric tools that I can draw on to study any market. I have worked with large datasets in excess of 1-million observations, often compiling them from diverse sources. I am also familiar with using tools like ArcGIS and Tableau for geoprocessing data and creating maps for publication. Beyond these technical skills, I have also studied commodity markets, fixed income securities, and financial derivatives which allows me a more complete perspective of financial markets in general.

Education

University of Houston

M.A. IN ECONOMICS

Houston, TX

August 2013 - May 2016

University of Houston

M.S. IN FINANCE

Houston, TX

August 2008 - December 2013

Rice University

B.A. IN MATHEMATICAL ECONOMIC ANALYSIS

Houston, TX

August 2002 - May 2006

Professional Experience

Lone Star College

ADJUNCT PROFESSOR

Cypress, TX

January 2014 - Present

Hired to teach three hour introductory Microeconomic and Macroeconomic classes in both a face-to-face and online setting. Responsible for developing a course syllabus, writing assignments and tests, and maintaining an online classroom complete with discussion boards and weekly modules to supplement coursework. Courses taught are credit bearing and the college is regionally accredited.

University of Houston

RESEARCH AND TEACHING ASSISTANT

Houston, TX

August 2008 - May 2013

Extensive experience in data collection, management, and econometric analysis for academic research and publication. Also responsible for teaching and grading undergraduate and MBA graduate courses at the University of Houston. Received the Clay and Lucy Carter Teaching Excellence Award.

The Methodist Hospital

RESEARCH FELLOW

Houston, TX

May 2005 - July 2008

Fellowship to study how patients make medical decisions under severe uncertainty. Developed mathematical models to use biometric data and help patients discover their personal normals and provide feedback to manage chronic disease. Produced "In Context" a biweekly podcast with Dr. Clifford Dacso on current medical news. Published a peer reviewed article on uncertainty in medicine and presented research at conferences in the US and abroad.

Rice University

GRADER, LINEAR ALGEBRA

Houston, TX

August 2005 - December 2005

Graded Linear Algebra assignments and provided feedback on the performance of students through the semester. Required advanced knowledge of matrix manipulation, vector spaces, and linear programming.

An introduction to the non-profit world with hands on experience in development including web updates and database management. Constructed queries, reports, and exports for further analysis. Participated in projects in coordination with the Brazilian, Mexican, and French offices.

Technical Skills

Programming Matlab • Stata • ArcGIS • \LaTeX • Excel Macros and Pivot Tables R • Python • SQL • HTML & CSS

Statistical Expertise Linear Regressions • Maximum Likelihood Estimation • Logit & Probit Models • ARIMA Models with Trend • GARCH Models • Bayesian Analysis • Unit Root Testing • Markov Chain Monte Carlo Simulation • Identification of Structural Breaks • Regression Discontinuities • Spectral Analysis • Jackknife & Bootstrap Resampling • Sample Size & Power Calculations

Selected Coursework

Economics Applied Econometrics • DSGE Models • Urban Economics • Monetary Policy • International Monetary Economics • Macroeconomic Modeling & Forecasting

Finance Options & Futures • Fixed Income Securities • Continuous Time Finance • Financial Management • Financial Econometrics • International Finance & Macroeconomics

Research Projects

A Hedonic Model of Home Prices in Houston

University of Houston

URBAN ECONOMICS

May 2016

Used Harris County Appraisal District data along with demographic and neighborhood characteristics obtained from the U.S. Census to build models of single family home prices in Houston.

Drought and the Influence of Water Wells on Crop Selection

University of Houston

INDEPENDENT RESEARCH

November 2015

Used USDA satellite data and drought maps to analyze how access to deeper water wells can influence crop selection in drought years.

Revised Expectations and Agricultural Futures Prices

University of Houston

INDEPENDENT RESEARCH

May 2013

Extracted USDA forecasts of crop yields to study how updated expectations are incorporated into agricultural futures prices.

Heterogeneous Uncertainties in Cholesterol Management

The Methodist Hospital

PUBLISHED: INTERNATIONAL JOURNAL OF APPROXIMATE REASONING

2009

A study to explore the robustness of clinical guidelines used by physicians when managing a patient's cholesterol levels. Demonstrate that strict adherence to guidelines are sometimes, but not always, consistent with the expected utility expressed by a patient.

Honors & Awards

2009 **Clay & Lucy Carter Teaching Excellence Award**, C.T. Bauer College of Business, University of Houston

Houston, TX

2008 **Dyer Fellowship for Improving Patient Care Through Research**, The Methodist Hospital

Houston, TX

2006 **Philpott Award for Service to Baker College and Rice University**, Rice University

Houston, TX

2005 **Finger Fellowship for Sustainable Health**, The Methodist Hospital

Houston, TX

2002 **Barbara Jordan Scholar**, Rice University

Houston, TX