Jon Carrasco

DATA SCIENTIST · ECONOMIST · COMMERCIAL REAL ESTATE PROFESSIONAL

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Summary

I have 18 years of experience of working with data in finance, commercial real estate, and medicine. Each of these fields have exposed me to a diverse set of statistical and econometric tools that I draw upon to tackle any question. Whether working with millions of observations or a small curated sample, data requires a compelling story that can be told with clarity to be meaningful. Data wrangling can be messy but with the help of scripts and APIs it is possible to stitch together datasets from disparate sources for reliable analysis on demand. I am also familiar with programs like ArcGIS for geoprocessing data for map creation and spatial analysis. Beyond these technical skills, I have studied commodity markets, fixed income securities, and financial derivatives which allow me a more complete perspective of financial markets in general.

Education

University of Houston
Houston, TX

M.A. IN ECONOMICS — May 2016

M.S IN FINANCE — December 2013

Rice University
Houston, TX

B.A. IN MATHEMATICAL ECONOMIC ANALYSIS WITH HONORS — May 2006

Professional Experience

Avison Young
Houston, TX

GLOBAL LEAD, BUSINESS INTELLIGENCE — March 2024 - Present

Business Intelligence

My team and I are responsible for developing a suite of interactive dashboards and visualizations that support our colleagues and clients across our global platform. Our work spans dashboard development, geospatial analysis, and custom reporting tools—built using platforms like Power BI, ThoughtSpot, and Streamlit.

We work in close partnership with our Data Architecture team to ensure our data pipelines and reporting solutions are built with scalability, reliability, and governance in mind. This alignment enables us to deliver high-impact, reusable assets that meet the needs of both local markets and global leadership.

Our team's work has supported strategic initiatives across the organization and has been featured in national news publications and industry trade journals, reflecting the value and innovation of our business intelligence program.

Data Science

I lead our data science team and their effort to bring analytical rigor and predictive insights to a commercial real estate audience. We work closely with executive leadership and client-facing teams to support high-impact initiatives. By employing advanced statistical methods, geospatial analysis, and machine learning techniques, we uncover market trends and investment opportunities that might otherwise go unnoticed. Our team transforms raw data—such as foot traffic, tenant behavior, demographic shifts, and financial metrics—into actionable intelligence that informs strategic decision-making.

Our team also drives operational efficiency through automation, improved data quality, and a resilient analytics infrastructure. We manage end-to-end analytics workflows using Snowflake, Python, SQL, and Azure DevOps, supporting scalable, version-controlled deployment pipelines.

Madison Marquette

VICE PRESIDENT, FINANCIAL PLANNING & ANALYSIS/DATA ANALYTICS _May 2022 - January 2024_
DIRECTOR, DATA ANALYTICS _May 2021_
ASSOCIATE DIRECTOR, RESEARCH AND DATA ANALYTICS _September 2019_

Financial Planning & Analysis

Responsible for the production of comprehensive annual budgets, revenue forecasts, and financial planning across all verticals. My work has primarily focused on process improvements to automate the flow of data and generation of downstream reports to cut down reporting time to hours instead of days. While in my role, I've built a suite of custom tools using Python to facilitate the ETL process that bridges our raw financial data from Yardi into our financial performance management software Prophix. There I collaborate with corporate accounting leadership to build financial models and bespoke reports to provide actionable insight to executive leadership. I also participate in the financial analysis and due diligence process during our M&A negotiations by analyzing financial statements, evaluating valuation models, and forecasting revenue scenarios.

Data Analytics / Research

Spearhead the automation of routine tasks where possible to ensure that reports and analytics produced by our finance and research teams are reliable, timely, and accurate. Using my software development skills, I have built custom applications that are able to take over the collection and quality assurance of datasets and return standardized charts and tables that allow for on demand finance and research reporting. As an example, we are often first to report on Retail Sales released by the Census because I built an application that downloads raw sales data using an API call, calculates a series of summary statistics, and then generates an Excel file with key tables and graphs formatted and ready for use in presentations.

Developed a suite of interactive dashboards that generate historical studies on vacancy, availability, absorption, and leasing activity to be conducted on-the-fly for quick identification of trends. These dashboards can be printed out for distribution using a traditional slideshow format or they can be published online to allow for a conversation driven presentation of the data. I have also built an ecosystem of quarterly market and submarket reports using business intelligence tools like Tableau supported by computer programs written in Python to conduct routine analysis and data integrity checks.

Data Management

Data analytics are only as good as the infrastructure supporting them. To deliver best in class analytics, I have built a set of tools that allow third party market data and demographics to be linked to proprietary lease/sale comp, tenant, and availability information. With this structure in place, I am able to create research products that can be quickly refreshed which ensures new intelligence is always available and reports are never stale. Using these tools, I have been able to track the Madison Marquette portfolio of assets and properties serviced. By linking internal and external datasets, I have been able to provide a real-time view into our portfolio with key performance indicators from otherwise siloed information.

CBRE

SENIOR ANALYST, DATA INTELLIGENCE _March 2019 - September 2019_
ANALYST, DATA INTELLIGENCE _September 2016_

Applications and Dashboards

Dashboards I built in Tableau and R were featured by CBRE Research as a Global Best Practice. I was invited on many occasions to teach advanced Tableau training sessions to my research peers across the company. Interactive portfolios, maps, and skylines I designed were featured in point-of-sale presentations and pitches in the office, retail, and multifamily lines of business. A quarterly Office and Industrial Market Share dashboard I built was adopted by the Managing Directors of the South-Central Region.

Data Management

Under my leadership, the Digital Intelligence team improved the quantity and quality of information captured in their proprietary database of lease comps and property data. Custom scripts I wrote in Python and Excel enabled our team to capture internal comp information in half the time and deliver an on-the-fly customized report to both brokers and management. My efforts to standardize and automate data collection by scraping websites and utilizing APIs allowed the research team to circulate market reports and present economic data each quarter without production lag.

Point of Sale

I was often invited to present my data visualizations and analysis in client briefings and at the point of sale in both Agency and Occupier pitches. The ability to work alongside a team of brokers allowed me to ensure that the analysis presented was tailored to the question at hand and in step with the overall vision the team was advocating. Because of my background in economics, I was called on to speak with authority on broader market trends and macroeconomic indicators by delivering a quarterly overview of the Houston economy and office market in the Office, Industrial, and Debt and Structured Finance lines of business meetings.

Lone Star College
Cypress, TX

ADJUNCT PROFESSOR, ECONOMICS
January 2014 - Present

I currently teach three-hour introductory Microeconomic and Macroeconomic classes in both a face-to-face and online setting. I am responsible for constructing a course syllabus, writing exams, and maintaining an online classroom complete with discussion boards, case studies, and weekly homework assignments to supplement coursework. Courses taught are credit-bearing and the college is accredited by the Southern Association of Colleges and Schools Commission on Colleges.

University of Houston
Houston, TX

RESEARCH AND TEACHING ASSISTANT
August 2008 - May 2016

Data collection, ETL, data management, and econometric analysis for academic research and publication. Experience working with NYSE high-frequency trade and quote data, commodity market futures and spot prices, and geospatial datasets.

Responsible for teaching and grading undergraduate (Principals of Financial Management) and MBA graduate courses (Corporate Finance, Fixed Income, Energy Insurance and Risk Management) at the Bauer College of Business. Received the Clay and Lucy Carter Teaching Excellence Award.

The Methodist Hospital
Houston, TX

SENIOR RESEARCH TECHNICIAN
May 2005 - August 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. Awarded a fellowship to apply six-sigma principles to study blood bank procedures and develop more robust methods. 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.

Technical Expertise

App Development	**Languages** Python • R • JavaScript • Stata • Matlab **ETL** SQL • Snowflake • Databricks • Alteryx • FastAPI **Dashboards** Microsoft Power Apps • Streamlit • Shiny • Tableau • Microsoft Power BI
Business Intelligence	**Applications** Prophix • Datex • Costar • ArcGIS Business Analyst • Real Capital Analytics **Reporting** Adobe InDesign • HTML & CSS • Excel Macros and Pivot Tables • LaTeX **Spatial** ArcGIS • QGIS • Placer.ai
Machine Learning / AI	Linear Regressions • Maximum Likelihood Estimation • Logit & Probit Models • ARIMA Models with Trend • GARCH Models • Bayesian Analysis • Markov Chain Monte Carlo Simulation • Identification of Structural Breaks • Regression Discontinuities • Spectral Analysis • Jackknife & Bootstrap Resampling • K-means clustering • Neural Networks • Web Scraping

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*