

Ryan James Martin

Ryan.J.Martin1@gmail.com • San Francisco, CA • <https://github.com/rjm001>

EDUCATION	<p><i>University of California, Los Angeles (UCLA)</i> PhD, Economics August 2013–June 2019 Focus: <i>Causal Inference, Consumer Price Sensitivity, ML and Econometrics</i> Additional Graduate Training: Statistics, 9 Courses Spring 2016–Fall 2017 Causal Inference, Experiment Design, Machine Learning and Deep Learning, Time Series, Statistical Networks, High Dimensional Statistics, Computational Methods, Applied Statistics (3.97 Stats GPA) Graduate Math: Probability Modeling, Measure Theory, and Asymptotic Analysis</p> <p><i>University of California, San Diego (UCSD)</i> BS, Probability and Statistics, <i>magna cum laude</i> Fall 2010–Summer 2012 Minor: Economics (Math-Econ GPA 3.96) Computer Science Courses: C, Java and OOP, Data Structures (Java), Assembly Coursera Courses: Data Structures (Python), Algorithms (Python), Using Python to Access Web Data</p>
RELEVANT SKILLS	<p>Programming: R (tidyverse, tidymodels, etc.), Python (Pandas, Numpy, StatsModels, LinearModels, Matplotlib, Scikit-learn, Scipy, Seaborn, Flask, dbt, etc.), SQL (PostgreSQL, Snowflake), Dagster, RShiny, Git, Bash/Shell, Looker, \LaTeX, Excel. Operating Systems: Mac, Linux (Ubuntu, Pop!_OS), Windows. Additional: Website Design as hobby.</p>
RELEVANT EXPERIENCE	<p>Flexport, San Francisco May 2021–Present <i>Senior Economist, Causal Inference and Pricing</i> Mar 2023–Present</p> <ul style="list-style-type: none">• In addition to the “Economist” duties below,<ul style="list-style-type: none">– Serve as the team lead of our Pricing and Causal Inference Economists and Causal Inference PhD interns.– Coordinate research across my team and with non-economist-data-science teams to solve key business problems and meet key business goals. <p><i>Economist, Causal Inference and Pricing</i> May 2021–Mar 2023</p> <ul style="list-style-type: none">• Use machine learning, causal inference, and econometric tools in R and Python to solve key business problems. Build pipelines to automatically deliver data to these tools using my expertise in Python and SQL.• Improve Flexport’s products and business processes by <i>designing experiments, measuring experimental outcomes</i>, and guiding business decisions based on the experimental results.• Prototype novel solutions to business problems by (1) working closely with business stakeholders to understand business needs, (2) gathering information on available data, (3) performing exploratory analysis on the data, and (4) iterating on econometric and ML models to solve these problems.• Deliver key takeaways from my models and experiments to business leaders through automated dashboards, presentations, and research reports.• Work directly with interdisciplinary teams of applied scientists, data scientists, and other business stakeholders to deliver data-science solutions to business problems.• Co-lead an internal reading group on revenue management, causal inference, and econometrics.

Senior Economist, Bank of Canada, Ottawa July 2019–May 2021

- Built machine-learning and time-series models to automate bank-note-demand (-volume) forecasts and report bank-note-demand volatility (risk) using my expertise in R.
- Built and estimated sophisticated econometric and statistical models in R and Python to measure Canadian demand elasticities (or price sensitivities) to payment methods at the point of sale.
- Helped design national surveys and analyzed the results of discrete choice experiments from those surveys to measure the price elasticities (economic demand) of existing and novel monetary products.
- Built and estimated panel-data models from financial diaries of payment card choice at the point of sale in R to inform policy on interchange fees and measure the competitiveness of the Canadian market for payment at the point of sale.
- Wrote clear, concise research reports on my methodology and results to inform the scientific research community and for publication in leading academic journals.
- Wrote non-technical reports and presented key insights from my research to Bank leaders. Through this work, my research informed Bank of Canada's strategy around the release of new Bank products.

PhD Research, UCLA, Los Angeles Sep 2015–June 2019

- Built and estimated novel econometric models to measure consumer price sensitivities (and economic demand) in an online marketplace with product search across an A/B test (experiment) of different product listing algorithms.
- Worked directly with world-class professors to build and estimate econometric, game theory, and machine learning models that measured market demand (price sensitivity) for health insurance in R.
- Developed and used sophisticated econometric, machine learning, and statistical tools to solve the following problems:
 - Estimating the upper and lower bound of bidder valuations in an English auction.
 - Estimating the price effects of airline mergers.
 - Estimating the effect of subsidies on the demand for insurance in California's healthcare exchanges.
 - Estimating the consumer welfare consequences of search-list order for an online travel agency.
 - Using the lasso for inference on the most-treatable subpopulations in a randomized experiment.
 - Bootstrap estimates for confidence bounds of conditional CDFs and non-additively separable functions.

Research Intern, Microsoft (MSR), Redmond, WA June 2016–Sep 2016

- Sharpened skills in database management using SQL-like language and data analysis using R and Python while working with large-scale search data.
- Applied knowledge of web scraping, string parsing, and big-data queries to build a data pipeline and estimate econometric models.
- Used econometric models' output to gain deep insights into high impact research questions.

Teaching Assistant, UCLA, Los Angeles Fall 2014–June 2019

- Led weekly classroom discussion sections of 10–30 undergraduates students for courses including Econometrics, Game Theory, Microeconomics, Macroeconomics, and Statistics for Economists.