Jared D. Berry

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Skills

Programming	R (tidyverse, Shiny), Python (pandas, numpy, scikit-learn, statsmodels, plotly, scipy, ipywidgets, voila), Linux (bash), Stata
Data stores	SQL(PostgreSQL), Dropbox, SAS, FAME
Markup	LaTeX, Markdown, R Markdown
Technologies	Git, GitLab, Docker, RStudio, VS Code, conda, Jupyter, Jira

Experience

2019–Present **Senior Data Scientist**, *Morning Consult*, Washington, DC.

- Oversaw fielding, processing and report generation for all custom research for regional clients as a client-facing data scientist, including 13 Fortune 500 companies
- Managed a junior data analyst, responsible for guiding professional development, delegating tasks, and scoping advanced analysis projects
- Stood up ETLs, automated benchmarking, and internal-facing UIs underlying a number of economic intelligence instruments and metrics
- Built proof-of-concept data products on public opinion data in Shiny and ipywidgets/voila
- Wrote white papers and interactive markdown documents to communicate results and analytical frameworks to technical and non-technical audiences
- Developed a Shiny application distributed in Docker and underlying suite of functions in R to parse unstructured Word documents for upload through the Qualtrics API
- Productionized methods to canonicalize discrete, unstructured open-ended entities using a combination of regular expressions and edit distance in R and Python
- Integrated the use of CausalImpact library to measure the impact of market interventions and crises on brand reputational metrics
- Performed analyses using LASSO and Random Forest models to determine key demographic drivers of consumer confidence indexes and clients' reputational metrics
- Established a framework for identifying leading indicators of real-world metrics (e.g. sales volumes, passenger throughput) drawn from time series of public opinion data
- Developed and validated architecture for performing choice-based maximum differences (MaxDiff) analyses internally, leveraging hierarchical Bayesian modeling in R
- Automated the processing and delivery of data pulls from flagship SaaS brand intelligence platform using R and cron to rapidly deliver custom reports to clients
- Automated ingestion of and reporting on national omnibus surveys in Qualtrics, end-to-end
- Acted as a maintainer for internal R packages in GitLab

2021–Present **Adjunct Lecturer**, *Georgetown University*, Washington, DC.

- Coordinate and lead "Creating Value from Survey Data" course covering the use of R and Python for setting up ETLs, analyses, and scalable data products with public opinion data

2018–Present **Adjunct Lecturer**, *Johns Hopkins University*, Washington, DC.

- Coordinate and lead intensive, introductory, skills courses in the R programming language for economics graduate students, both in-person and virtually
- Created course materials in R Markdown covering foundations, data visualization, data wrangling with tidyverse packages, and predictive modeling using the RStudio IDE

2017-2019 **Senior Research Assistant**, *Federal Reserve Board of Governors*, Washington, DC.

- Co-authored FEDS Note on changes in net interest margins at banks relative to monetary policy tightening, developing decompositions using bank balance sheet data in R
- Built a novel data set from FR Y-15 filings from NIC and co-authored FEDS Note to measure window-dressing behavior in setting of GSIB surcharges
- Wrote and optimized code to operationalize weekly branch-level deposit rate data and built out analytics and visualization for monitoring using R and PostgreSQL
- Developed a monitor for bank earnings expectations using Thomson Reuters I/B/E/S data, tapping into data pipelines with Python and PostgreSQL and building out visualizations in R
- Engineered proxy features for bank lending standards and implemented parallelized machine learning algorithms in SLURM to predict standards out of sample
- Performed entity resolution to merge disparate panels of banks across multiple data sources

2016-2017 **Research Assistant–Jaime Marquez**, *Johns Hopkins University*, Washington, DC.

- Modeled interdependent Taylor Rules with Full-Information Maximum Likelihood models and Monte Carlo methods to assess interest rate regime interdependency

Education

2019 **Data Science Certificate**, *Georgetown University*, Washington, DC.

2016–2017 **Master of Arts, International Economics and Finance (MIEF)**, *Johns Hopkins University, School of Advanced International Studies*, Washington, DC.
Cumulative GPA: 3.97, with Distinction; STEM-Accredited in 2018

2011–2015 **Bachelor of Arts, Economics**, *Capital University*, Columbus, OH.
Cumulative GPA: 3.99, Honors, Summa cum Laude

Data Science Capstone

Passive Portfolio Management: Predicting Excess Returns with Machine Learning

Constructed a novel data set of carefully engineered financial features and leveraged machine learning algorithms in Python to predict excess returns relative to an index, using custom-built frameworks for cross-validation.

Masters Capstone

The Role of Theory-Motivated Fundamentals in Long-Horizon Exchange Rate Forecasting

Examined the role of "fundamentals" (or theory) in long-term exchange rate forecasting, improving the accuracy of long-term exchange rate forecasts by incorporating structural components, such as the relative price ratio. Analysis conducted in EViews.