Michael Boerman

Detail-oriented data scientist with M.S. + 2 years' experience driving decisions by modeling economic and financial data.

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Covid: How Long Did You Last?

Professional Job History

Federal Reserve Board of Governors

Financial Systems Analyst (Data Engineering)

December 2021 - Present

Summary: Automate data ingestion and analysis for financial regulation data

- Collaborate with data providers and data users to collect, validate, and store the Federal Reserve's national financial data.
- Improve and automate business processes, data ingestion, and data analysis by writing automated R and Python scripts.
- Develop 2 internal R packages to automate repeated and complex SQL queries, saving up to 35 person-hours/week across multiple divisions.
- Define KPI and performance metrics and communicate them through interactive dashboards in R Shiny and Tableau.
- Define coding best practices, style guides, version control procedures, and database design.

Senior Research Assistant (Data Science)

May 2020 - December 2021

Summary: Developed forecasting models used in FOMC monetary policy

Links to Work: Predicting the Present and Covid Lockdown Severity Index

- Collaborated with economists to create statistical, predictive models using state-space time series, dynamic factor models, and ARIMA models.
- Prototyped, tested, validated, and deployed more than 10 statistical models and over 50 unique visualizations across 30 repositories. Results used by more than 100 people to make decisions about interest rates, including Fed Chair Jerome Powell.
- Developed and maintained 3 R packages with over 100 functions used in more than 250 scripts.
- Built a documentation website in R Shiny for version-controlled, wiki-based documenting across teams.

EDUCATION

Georgia Institute of Technology, Atlanta, GA, USA

August 2019 - May 2020

M.S. in Applied Economics, concentration in statistics and econometrics

GPA: 4.0

 ${\bf University\ of\ Alabama\ in\ Huntsville,\ Huntsville,\ AL,\ USA }$

August 2015 - May 2019

B.S. in Industrial & Systems Engineering; Minor in Astrophysics

GPA: 4.0

Competencies

Time series analysis, regression analysis, predictive modeling, forecasting, Bayesian inference, natural language processing, ETL, data wrangling, data cleaning, database development, data visualization, Infrastructure as Code, git version control, CI/CD deployment

Programming

SQL, R (R Shiny, Rmarkdown, tidyverse, ggplot2), git, shell, Python, Tableau

CERTIFICATIONS

Six Sigma Green Belt, AQS, April 2018

Tableau Desktop Specialist, Tableau, September 2019. Link.