Michael Boerman

Data scientist with M.S. and 3 years experience driving decisions by modeling financial and economic data.

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PORTFOLIO www.michaelboerman.com YouTube channel Covid: How Long Did You Last?

PROFESSIONAL JOB HISTORY

Discover Financial Services

Lead Data Science Analyst — October 2022 - Present

Summary: Forecast credit chard charge-off rates using time series econometrics

- Transformed messy development time-series and machine learning code (Python, R) into fully-tested, scalable production code.
- Created and maintained documentation for every process owned by the team using markdown and git under the Diataxis documentation framework.
- Transitioned the team's file and code management from local storage to Sharepoint and Github.

Federal Reserve Board of Governors

Financial Systems Analyst (Data Engineering) — December 2021 - October 2022

Summary: Automate data ingestion and analysis for financial regulation data (CCAR).

- Automated business processes, data ingestion, and data analysis with R, Python, and SQL.
- Communicated performance metrics by creating interactive dashboards in R Shiny and Tableau.
- Created machine learning models to detect outliers in bank submission data.

Senior Research Assistant (Data Science) — May 2020 - December 2021

Summary: Developed inflation and GDP forecasting models used in FOMC monetary policy.

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

- Collaborated with economists to create statistical models and econometric forecasts using state-space time series, dynamic factor models, and ARIMA models.
- Deployed models to production using Gitlab CI/CD pipelines.
- Wrote and refactored code in R and Matlab for more than 10 statistical models and over 50 unique visualizations across 30 git repositories.
- Developed and maintained 3 in-house R packages with over 100 functions used in more than 250 scripts.
- Built a documentation website in R Shiny for version-controlled, wiki-based documentation.

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

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, econometrics, forecasting, regression analysis, predictive modeling, ETL/ELT, database development, data visualization, git version control, Agile, CI/CD, technical writing

PROGRAMMING

Python, R, SQL (Postgres, Snowflake), Airflow, git, linux, shell/bash, Tableau, MATLAB