# Michael Boerman

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

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## Contact

michaelboerman@hey.com | 484-219-7563 | www.michaelboerman.com


## Projects

**Covid Lockdown Severity Index**

- Computed national and state indices to measure Covid-era lockdown policies
- Previously used at the Federal Reserve Board; now free and open-source
- Consulted for multiple students (especially from China) on creating similar indices

**YouTube channel for statistics education**

- 3,000+ subscribers, 250k views, 2.5m impressions, 99% like rate
- 100% free (no monetization, no sponsors)

## Professional Job History

### Discover Financial Services

Lead Data Science Analyst — October 2022 - Present

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

- Decreased human errors and model re-runs by transforming messy development code into fully-tested, scaled, and deployed production code.
- Provided CFO and VPs macroeconomic summaries weekly with automated reports (SQL, Python, R).
- Reduced new-hire training time and increased team cross-training by writing and maintaining documentation for more than 15 processes and 7 tools using markdown and git.
- Transitioned the team's code management from local folders to 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.

- 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 250+ scripts.

## 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