

# Michael Boerman

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

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## CONTACT

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## 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 students and universities 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 card charge-off rates using time-series econometrics.

- Decrease human errors and model re-runs by transforming messy development code into fully-tested, scaled, and deployed production code (Airflow, Snowflake, GitHub, linux).
- Provide the CFO and VPs weekly, automated macroeconomic reports (SQL, Python).
- Reduce 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 (R, Python, SQL).
- Communicated performance metrics by creating interactive dashboards (R Shiny, Tableau).

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 forecasts using state-space time series, dynamic factor models, and ARIMA models.
- Deployed models to production using Gitlab CI/CD pipelines and cron schedules.
- Wrote and refactored code in R and Matlab for more than 10 statistical models and over 50 unique visualizations across 15 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

## COMPETENCIES

Time series analysis, forecasting, predictive modeling, ETL/ELT, database development, data visualization, shell scripting, git version control, Agile, CI/CD, technical writing.