JACQUES BOOYSEN

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EDUCATION

University of Virgina — Expected Apr 2023
Master of Science: Data Science — Charlottesville, VA

Brigham Young University — Apr 2020
Bachelor of Arts: Computational Political Science — Provo, UT
Thesis: Political Message Detection and Likeability in Films (n=1000 survey)

EXPERIENCE

Dynata — Aug 2022-Present
Data Scientist — Herndon, VA

Morning Consult — Nov 2021-Aug 2022
Senior Data Analyst — Washington, D.C.

- Over 300+ requests, pulled data from API or large database into R, wrangled data using R, and output figures and tables
- In conjunction with other data scientists on a large project, developed and performed statistical tests on time series data in 17 surveys of 5 countries in over 200 tables
- Led project to build a Python Web Bot (Selenium) to automate generation of test cases in surveys, contributed this to data science code base (used by 60+ data scientists), saving company $10,000s in time and errors

Echelon Insights — April 2020-Nov 2021
Research Analyst — Alexandria, VA

- Led in modeling projects predicting election turnout for entire U.S. in 2022, phone response rates, etc.
- Wrangled, cleaned, weighted, or made presentations for 60+ survey datasets with R, SQL, and AWS
- Using R Shiny, built a codeless-crosstab tool for company's research team

Center for Elections and Democracy — Dec 2018-April 2020
Undergraduate Research Fellow — Provo, UT

- Designed and executed multiple survey experiments in original research projects
- Mentored 60+ students in solving econometrics problems in weekly office hours
- Visualized data using R creating 50+ informative figures for the AFS official report, news outlets, and professor's projects

PERSONAL PORTFOLIO PROJECTS

Bayesian County-Level School Shooting Analysis — August 2022

- Compared and estimated several Bayesian Regression models with PYMC3 in Python. Ultimately, used hierarchal negative binomial model to predict shootings and make inferences about gun laws

Weekly COVID Email Update — November 2021

- Fully automated workflow (Github Actions) taking latest CDC data, transforming into visualizations, and sending informative email every Saturday morning to subscribers made in R
- encrypted all API tokens via custom encryption (R package Sodium) + github environment variables so repository can be publicly viewable
- Each subscriber recieves national data and state-level data customizable to their home state

US 2020 Election Model November 2020

- Created visualization dashboard with plotly displaying daily results of statistical model
- Generated 1000 simulations daily of election winner based on a probabilities from model for each state
- Modeled and adjusted for survey error using fixed effects regression