

ALEX BASS

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EDUCATION

University of Virginia Master of Science: Data Science	Expected Apr 2023 Charlottesville, VA
Brigham Young University Bachelor of Arts: Computational Political Science <i>Thesis: Political Message Detection and Likeability in Films (n=1000 survey)</i>	Apr 2020 Provo, UT

EXPERIENCE

Dynata Data Scientist	Aug 2022-Present Herndon, VA
Morning Consult Senior Data Analyst	Nov 2021-Aug 2022 Washington, D.C.
<ul style="list-style-type: none">Over 300+ requests, pulled data from API or large database into R, wrangled data using R, and output figures and tablesIn 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 tablesLed 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 Research Analyst	April 2020-Nov 2021 Alexandria, VA
<ul style="list-style-type: none">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 AWSUsing R Shiny, built a codeless-crosstab tool for company's research team	
Center for Elections and Democracy Undergraduate Research Fellow	Dec 2018-April 2020 Provo, UT
<ul style="list-style-type: none">Designed and executed multiple survey experiments in original research projectsMentored 60+ students in solving econometrics problems in weekly office hoursVisualized 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
<ul style="list-style-type: none">Compared and estimated several Bayesian Regression models with PYMC3 in Python. Ultimately, used hierarchical negative binomial model to predict shootings and make inferences about gun laws	
Weekly COVID Email Update	November 2021
<ul style="list-style-type: none">Fully automated workflow (Github Actions) taking latest CDC data, transforming into visualizations, and sending informative email every Saturday morning to subscribers made in Rencrypted all API tokens via custom encryption (R package Sodium) + github environment variables so repository can be publicly viewableEach subscriber receives national data and state-level data customizable to their home state	

- 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