

# ALEX BASS

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## EDUCATION



**University of Virginia**

Charlottesville, VA

Master of Science: Data Science



**Brigham Young University**

Provo, UT

Bachelor of Arts: Political Science

## EXPERIENCE



**Dynata**

(1yr 6mth) Aug 2022-Present

*Data Scientist, Marketing*

Herndon, VA

- **Led team (3 DS) to build a bayesian multi-touch attribution (PYMC) product measuring effectiveness of ad campaigns on brand lift surveys.** Outputting lift curves, channel contribution charts, and a simulation tool for client delivery.
- Regularly deliver advanced analytical studies (diff-in-diff, dominance analysis, time series, MTA). In total, delivered over 100 of these studies to clients including Google, Meta, ServiceNow, Chickfila.



**Internet Archive**

(6mth) Nov 2022-May 2023

*Intern, Data Science*

Washington, D.C.

- **Solved entity resolution problem with Gradient Boosted Trees** [\[here\]](#) linking sparse wikipedia references to Internet Archive Database References analyzing 15+ million records.
- Implemented model in Python [\[here\]](#) which, given a wikipedia reference, will return a match in the Internet Archive Database along with a probability of matching.



**Morning Consult**

(10mth) Nov 2021-Aug 2022

*Senior Data Analyst*

Washington, D.C.

- **Developed and automated wave-over-wave chi-squared tests on time series data** in 17 tracker surveys of 5 countries
- Over 300+ requests, pulled data from API or large database into R, wrangled data using R, and output figures and 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)



**Echelon Insights**

(1yr 8mth) April 2020-Nov 2021

*Research Analyst*

Alexandria, VA

- Led in modeling projects **predicting election turnout for entire U.S. in 2022** analyzing over 460 million records.
- 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**

(1yr 5mth) Dec 2018-April 2020

*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 AFS official report [\[here\]](#), news outlets, and professor's projects

## SKILLS

**Languages and Tools** - *proficient*: Python, R, Bash *intermediate*: Spark, SQL, Tensorflow/Keras, Git, Docker

**Selected Coursework** - Deep Learning, Bayesian Machine Learning, Big Data Systems with Spark, Linear Models for Data Science, Statistical Learning, Data Engineering, Linear Algebra, Econometrics I & II, Data Visualization, Programming in Python

## SELECTED PROJECT

[Live Dashboard of 2024 US Presidential Election](#)

April 2020

- Estimate daily a heirarchal bayesian regression model to generate candidate probabilities of election outcomes using latest quality polling data
- Created a daily updated data pipeline using Python and Github Actions fed into Python visualizations in a Live Quarto Dashboard