ALEX BASS

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EDUCATION

University of Virgina — Expected Apr 2023
Master of Science: Data Science — Charlottesville, VA
Capstone Sponsored by The Internet Archive: Wikipedia NLP Link Matching Algorithm

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

EXPERIENCE

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

- Built diff-in-diff and multi-touch attribution **model codebase** in Python(OOP) for Ad Data Science Team and spec requesting these studies for Research Team. This code base has saved 100+ hours and brought in $100,000s in revenue.

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

- 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
- Over 300+ requests, pulled data from API or large database into R, wrangled data using R, and output figures and tables

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

Predicting AirBnB Bookings with Apache Spark — December 2022

- Used **ONLY Apache Spark (PySpark) in a distributed environment** to solve a classification problem.
- Coded a full data-pipeline: wrangling and joining data, EDA, feature engineering, model selection with a grid search (Lasso, Ridge, Naive Bayes, Random Forest, GBT), model evaluation, and full project write-up and analysis

CNN Classification of Urban Sounds — December 2022

- Extracted features such as MFCC, Chromagram, Spectral Contrast from 8000+ audio clips using Python.
- Estimated models custom and popular CNN architectures (AlexNet, GoogLeNet, etc.) using Tensorflow and Keras.
- Full project write-up and code on Github.

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