JACQUES BOOYSEN

booysenjacques@gmail.com · Portfolio · Github · LinkedIn

EDUCATION

University of Johannesburg Jan 2002
B.Sc (Hons) - Computer Science Johannesburg, South Africa

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

CERTIFICATIONS

Amazon Web Services Aug 2022
AWS Certified Solutions Architect – Associate Verify Link

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