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travisbyrum

Travis T. Byrum

Education

2013 **B.S. Statistics and B.A. Political Science**, *Duke University*, Durham, NC.
Senior Thesis: *Wavelet-Based Functional Modeling of Accelerometer Data in Fitness Intervention Study*
Dean's List Fall 2011, Fall 2012, and Fall 2013

Technical Skills

Languages: Python, JavaScript, TypeScript, Go, R, Java, LaTeX

Technologies: Flask, Django, React.js, Docker, MySQL, PostgreSQL, Elasticsearch, TensorFlow, MapReduce, Linux, aws, Nginx, git, Jira

Statistics and Machine Learning: Machine Learning, NLP, Clustering, Ensembles, Dimensionality Reduction, Mixed-Effects Models, Decision Analysis, Bayesian Statistics, Nonparametric Methods, Data Visualization

Experience

September 2017 - Current **Booz Allen Hamilton Software Developer**, Washington, DC.
- Designed backend search service for Grants.gov using Flask and Elasticsearch
- Constructed containerized data pipeline Grants.gov etl using Airflow
- Created chatbot for award winning internal investment including both frontend design in React.js and backend architecture

October 2015 - September 2017 **Morning Consult Data Scientist**, Washington, DC.
- Worked directly with company co-founders on all phases of polling projects including survey creation, monitoring, and data analysis (*Research has been cited by:* ***The Washington Post, New York Times, 538, Fortune Magazine, The Hill, ABC, Huffington Post, Vox, Bloomberg, among others***)
- Wrote and maintained software packages for in-house modeling and data visualizations using Python and R
- Developed data infrastructure and API integrations for automatic reporting using D3.js and Flask
- Constructed and validated state and congressional-level election forecasts based on national surveys using multilevel regression and post-stratification (MRP)

October 2014 - June 2015 **Milwaukee Bucks Analytics Intern**, Milwaukee, WI.

- Used the web application framework Shiny in the R programming environment to create a portal for distributing strategic information to coaches and front office employees
- Constructed statistical models for tasks such as forecasting career outcomes for drafted players and predicting the efficiency of lineup combinations
- Designed a framework for performance metrics to aid in player evaluation using several statistical methods
- Worked directly under the Bucks' Director of Analytics along with front office employees and coaches to assist in evaluating the team's on-court performance