Travis T. Byrum

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Education

Duke University
Durham, NC

B.S. Statistics and B.A. Political Science *2009 - 2013*

- 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

Software Engineer
Washington, DC

Booz Allen Hamilton *September 2017 - Current*

- 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

Data Scientist
Washington, DC

Morning Consult *October 2015 - September 2017*

- 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)

Analytics Intern
Milwaukee, WI

Milwaukee Bucks *October 2014 - June 2015*

- Used the web application framework Shiny 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