Travis T. Byrum

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Education

2013 B.S. Statistics and B.A. Political Science, Duke University, Durham, NC.

Coursework Includes: Multivariable Calculus, Linear Algebra, Probability, Mathematical Statistics, Data Analysis/Statistical Inference, Regression Analysis, Bayesian/Modern Statistics, Decision Theory, Statistical Consulting, Survey Statistics

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: R, Python, MySQL, PostgreSQL, LATEX, Markdown, JavaScript, HTML

Tools: IPython, matplotlib, numpy, scikit-learn, Flask, BeautifulSoup, caret, Shiny, ggplot2, git,

Github, Sweave, knitr, Unix Utilities, AWS, Microsoft Office, Qualtrics

Statistics and Classification, Regression, Mixed-Effects Models, Clustering, Ensembles, Dimensionality Re-Machine duction, Hypothesis Testing, Decision Analysis, Bayesian Statistics, Nonparametric Methods,

Learning: Data Visualization

Experience

October 2015 Morning Consult Data Scientist, Washington, DC.

- Improved statistical standards and developed best practices for the companys polling methodology
- Constructed and validated state and congressional-level election forecasts based on national surveys using multilevel regression and post-stratification (MRP)
- o Developed R package to automate in-house modeling and data visualization

October 2014 Milwaukee Bucks Analytics Intern, Milwaukee, Wl.

 - June 2015 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

June North Carolina Common Sense Analyst, Durham, NC.

2013-April • Synthesized North Carolina government finances for public viewing as part of a Duke student-led public policy initiative

- $\circ\,$ Conducted statistical and policy analysis on state budgetary operations
- Quantified information on state budgetary reports using the R programming environment and assisted the team's coders in creating data visualizations

August- Teaching Assistant, Duke Statistics Department, Durham, NC.

December • Helped conduct the Probability/Statistics in Engineering course at Duke University

2013 • Instructed one of the course's associated lab sections

Assisted students during office hours