Travis Byrum

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Education

Duke University

Durham, NC

B.S. Statistics and B.A. Political Science

2013

- 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, SQL, LATEX

Tools: IPython, matplotlib, numpy, scikit-learn, git, Github, BeautifulSoup, PostgreSQL, Sweave, Shiny, ggplot2, MapReduce, AWS, Markdown, Microsoft Office

Machine Learning and Statistics: Classification, Regression, Clustering, Ensembles, Dimensionality Reduction, Hypothesis Testing, Decision Analysis, Bayesian Statistics, Nonparametric Methods

Experience

• Morning Consult Data Scientist

October 2015 - Current

- Worked directly with company co-founders on all phases of polling projects including survey creation, monitoring and data analysis
- Developed R package to automate in house survey creation, monitoring, and adjustment for the polling team
- Developed R package to connect to Lucid Fulcrum via the Fulcrum API to allow polling and data team members to programmatically interact with Fulcrum
- Helped to improve statistical standards for the company's polling methodology
- Constructed and validated various models for primary and election forecasting
- Milwaukee Bucks Analytics Intern

October 2014 - June 2015

- Used the web application framework Shiny in the R programming environment to create a portal for distributing important 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
- North Carolina Common Sense Analyst

June 2013-April 2014

- Synthesized North Carolina government finances for public viewing as part of a Duke student-led public policy initiative
- 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
- Teaching Assistant, Duke Statistics Department

August-December 2013

- Helped conduct the *Probability/Statistics in Engineering* course at Duke University
- Instructed one of the course's associated lab sections
- Assisted students during office hours