

# 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,  $\text{\LaTeX}$ , Microsoft Office

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

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

## Experience

- *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
- *Duke Political Science Summer Research Assistant* *July-August 2012*
  - Assisted in creation of observational study on economic growth in developing countries
  - Compiled information on economic growth indicators using statistical software
  - Handled diagnostics and management of the study's primary dataset to assess quality and usability