

# Travis T. Byrum

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## Education

### Duke University

Durham, NC

B.S. STATISTICS

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,  $\text{\LaTeX}$
- **Technologies:** Flask, Django, React.js, D3.js, Docker, MySQL, PostgreSQL, Elasticsearch, Linux, aws, Nginx, git, Jira
- **Skills:** Machine Learning, NLP, Clustering, Ensembles, Decision Analysis, Bayesian Statistics, NumPy, scikit-learn, Tensorflow, NLTK, MapReduce
- **Awards and Activities:**
  - Booz Allen Hamilton Excellence Awards Team Finalist
  - Booz Allen Hamilton Living Our Values Every Day Award
  - Represented Milwaukee Bucks at the MIT Sloan Sports Analytics Conference

## Experience

### Software Engineer

Washington, DC

BOOZ ALLEN HAMILTON

September 2017 - Current

- Led search backend on Grants.gov refresh integrating ElasticSearch into Flask-powered microservice
- Designed containerized data pipeline for Grants.gov ETL indexing 40,000+ documents nightly using Apache Airflow
- Developed for internal cognitive search & virtual assistant platform utilizing Docker, ElasticSearch, scikit-learn, and Tensorflow
- 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 state-level and congressional-level election forecasts using mixed-effects modeling cited in several high-readership publications

### 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