

BRANDON I. KING

Ph.D. Degree from North Carolina State University | Data Science & Textiles

@ bking2415@gmail.com 📍 Raleigh-Durham, NC in linkedin.com/in/brandoniking
🔗 github.com/bking2415 🌐 bking2415.github.io/brandoniking.github.io



DATA SCIENCE EXPERIENCE

Data Scientist Intern | **Naval Information Warfare Center (NIWC)**

📅 May 2019 — August 2019 📍 Charleston, SC

- Collaborated with cross-functional teams on research projects: applied data pre-processing and machine learning concepts (*Term Frequency-Inverse Document Frequency and K-Means Clustering*) to build on existing systems infrastructure
- Used *Term Frequency-Inverse Document Frequency* and *K-Means Clustering* with *Java* and *Clojure* resulting in backend methods to perform 99% faster
- Communicated analysis from *K-Means Clustering* algorithm with leadership within the Business Enterprise and Data Analytics department to recommend the best approach to cluster documents

Graduate Research Assistant | **North Carolina State University**

📅 August 2016 — October 2021 📍 Raleigh, NC

- Analyzed Big Data (*using Microsoft Excel, VBA, JMP Pro, and EasyFit*) and constructed simulation models (*using SIMIO*) to improve healthcare processes and remove bottlenecks for efficient cardiac monitoring configurations
- Used *Python* to design and implement quantitative analysis, supervised learning methods, in-depth data exploration, and feature engineering on multi-dimensional data sets to extract insights on textile recycling behavior
- Utilized *Factor Analysis* and *PCA* for feature reduction and *K-Means Clustering* algorithm with *Python* to identify similarities between survey participants based on textile purchasing decisions and textile recycling motivations
- Compared and evaluated supervised learning models (*Step-wise Regression, Neural Networks, and Random Forest Trees*) with *Python* to predict a multi-regression output with accuracy, and improve textile manufacturing processes performance

ENTREPRENEURIAL EXPERIENCE

Owner & Lead Tutor | **Beacon of Light Tutoring**

📅 August 2015 — Present 📍 Triangle Area, NC

- Passionately serve as a mentor, tutor, and advisor for local middle school and high school students passionate about excelling in Mathematics
- Lead one-on-one sessions for students across all grade levels with their mathematics assignments
- Receive 100% positive feedback from tutees and currently have a 100% success and graduation rate

PRESENTATIONS

King, B.I., Rothenberg, L., Joines, J. *Applying Machine Learning Methods for Insight into Textile Recycling Behavior*. Presented at: 2021 Joint Statistical Meeting; August 2021.

TECHNICAL PROJECTS

Beat the Bookie | github.com/bking2415/Decision-Tree | Graduate Certificate Presentation

- Implemented supervised data science algorithms (*Decision Tree*) in *R* from ETL and data pipelines to improve the odds to make a profit on small bet lines

Data Analysis and Visualization | github.com/bking2415/Uber-data-analysis

- Implemented visible analytic concepts to assist in understanding complex data and gain business insights using *Tableau* and *R* libraries (*ggplot2, dplyr, and tidy*)

Database Management Systems Project |

github.com/bking2415/WolfHospital | Graduate Certificate Project

- Created a robust database system using *SQL queries* within *Java* to provide an command line user interface for optimal data ingestion, access and storage via API

EDUCATION

NORTH CAROLINA STATE UNIVERSITY

📍 Raleigh, NC

Ph.D. in Textile Technology and Management

📅 Expected: December 2021

Masters in Operations Research

📅 Graduation Date: December 2017

- **Affiliations:** Black Graduate Student Association - Finance Committee Chair (2018) | Minority Engineering Graduate Student Association

CLAFIN UNIVERSITY

📍 Orangeburg, SC

B.S. in Applied Mathematics

📅 Graduation Date: May 2015

- Alice Carson Tisdale Honors College Scholar
- **Honors:** Cum Laude | 100 Black Men Scholar
- **Affiliations:** National Society of Black Engineers - Academic Excellence Chair (2015) | Kappa Alpha Psi Fraternity, Inc. - Vice President (2014)

CERTIFICATIONS

Data Science Foundations Graduate Certificate by NC State University

Machine Learning Certification by Stanford University (Coursera)

ACHIEVEMENTS

🏆 Microsoft Azure Machine Learning Scholarship by Udacity

PROGRAMMING LANGUAGES

Python C Java JavaScript Clojure

STATISTICAL ANALYSIS TOOLS

R VBA SAS JMP MATLAB

DATABASE TOOLS

SQL

DATA VISUALIZATION TOOLS

Tableau

SOFT SKILLS

Team Oriented Leadership Problem Solver
Dependable Flexible Determination
Visionary Thinker Adaptable Organizer