Michael **Bostwick**

DATA SCIENTIST · MACHINE LEARNING · STATISTICS

908.500.6436 | michael.bostwick@gmail.com | mgbostwick.github.io | mgbostwick | michaelbostwick1

Education

University of North Carolina at Chapel Hill   *Chapel Hill, NC*
M.S. IN STATISTICS AND OPERATIONS RESEARCH (MACHINE LEARNING CONCENTRATION)   *May 2018*

University of Connecticut   *Storrs, CT*
B.S. IN STATISTICS (BUSINESS MINOR)   *May 2010*

Skills

Machine Learning	Regularization/Sparsity, Learning to Rank, Topic Modeling, Deep Learning, Recommendation
Programming	Python, R, SQL, Theano, Keras, Hadoop, SAS, Bash, Git, Algorithms
Statistics	Time Series, Regression, Design of Experiments, Survey Statistics
Operations Research	Optimization, Discrete Event Simulation, Linear/Integer/Dynamic Programming

Work Experience

UNC Kenan-Flagler Business School   *Chapel Hill, NC*
RESEARCH/TEACHING ASSISTANT   *May 2017 - May 2018*
- Enabled novel research of customer behavior in service operations through creation of Python pipeline to analyze complex call center data
- Designed machine learning assignments for MBA course in Data Analytics

Spreedly   *Durham, NC*
DATA SCIENCE INTERN   *Jun. 2017 - Jul. 2017*
- Built lead scoring model for financial technology startup, prioritizing prospective customers and providing insights into subscription behavior
- Developed Python code and analysis, which continue to be implemented for strategic sales and marketing initiatives
- Worked the problem from end to end, including: defining business considerations, cleaning messy data with Pandas, creating machine learning models in Scikit-learn, performing error analysis, and communicating results in company-wide presentation

RTI International   *Durham, NC*
STATISTICIAN   *Sep. 2014 - Aug. 2016*
- Recognized with RTI Annual Award for high quality and timely delivery of work for new high profile client
- Utilized SAS and SQL to process, weight and analyze survey data for clients including the CDC and the Department of Education
- Selected to present findings at the American Association of Public Opinion Research Annual Conference, furthering research on mobile surveys

Navy Federal Credit Union   *Vienna, VA*
IT RESEARCH & STRATEGY ANALYST   *May 2013 - Aug. 2014*
- Performed data analysis to identify trends and outliers in the performance of IT project portfolio, resulting in more effective resource utilization
- Provided research and analysis of trends at the intersection of banking and technology directly to the CTO and senior IT leadership

CRU   *Boston, MA*
DATA ANALYST/CAMPUS STAFF   *May 2010 - Aug. 2012*
- Led initiatives to support evidence based decision making for non-profit organization, informing national leadership decisions through accessible presentation of data-based findings developed in R

Projects

Survival of the Fittest: Variable Selection on Agricultural Data
MASTER'S PAPER
- Modeled agricultural relationships in the Galapagos Islands using ElasticNet and Forward Selection to find key variables among 200+ features

Learning to Rank for Call Center Queue Optimization
RESEARCH ASSISTANT
- Compared the performance of predicting shortest customer service time using a Neural Network ranking model optimized with Theano and standard regression model

Supervised Topic Modeling for Health Score Predictions
RESEARCH PROJECT
- Extracted topics from Yelp restaurant reviews predictive of inspection violations using Supervised Latent Dirichlet Allocation topic modeling