Michael Bostwick

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EDUCATION

MS, Statistics & Operations Research
University of North Carolina at Chapel Hill
May 2018
Machine Learning Concentration
Computer Science Minor

BS, Statistics
University of Connecticut
May 2010
Business Minor

SKILLS

Machine Learning

Text Mining

Optimization

Time Series Analysis

Linear Models

Survey Statistics

TOOLS

Python (Pandas, Scikit-learn)

Theano

R (tidyverse, ggplot2)

SAS

SQL

AMPL

Bash

EXPERIENCE

DATA SCIENCE INTERN
Spreedly, June 2017 – July 2017

- Built lead scoring model prioritizing prospective customers for financial technology startup using Python data ecosystem
- 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

STATISTICIAN
RTI International, September 2014 – August 2016

- Developed statistical programming in SAS to process, weight and analyze survey data for clients including the Centers for Disease Control, the Department of Education and the Department of Justice
- Selected twice to present research findings at the American Association of Public Opinion Research Annual Conference

IT RESEARCH & STRATEGY ANALYST
Navy Federal Credit Union, May 2013 – August 2014

- Performed data analysis to identify trends and outliers in the performance of IT project portfolio, resulting in more effective resource utilization and process improvements
- Provided research and analysis of trends at the intersection of banking and technology directly to the Chief Technology Officer and senior IT leadership team to inform strategic and tactical initiatives

DATA ANALYST/CAMPUS STAFF
CRU, May 2010 – August 2012

- Led initiatives to support evidence based decision making for non-profit organization, informing national leadership decisions through accessible presentation of data-based findings
- Pioneered new movements on three campuses in Buffalo, increasing the number of students involved from 2 to 35 in a single year

PROJECTS

Learning to Rank for Call Center Queue Optimization

- Compared the performance of predicting shortest customer service time using a pointwise regression model and a listwise Neural Network ranking model optimized with Theano

Supervised Topic Modeling for Health Score Predictions

- Extracted topics from restaurant reviews predictive of inspection violations using Supervised Latent Dirichlet Allocation

Recommender System for Yelp Restaurants

- Used text mining techniques on Yelp reviews to implement custom K-Nearest Neighbor recommendation algorithm in R