

# Nate Mahalingam

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## Education

### **University of Missouri – Crosby MBA Program**

December 2018

Master of Business Administration emphasis in Marketing Analytics

- VP of Education – Mizzou Analytics Society

### **University of Birmingham, United Kingdom**

September 2015

Master of Science Advanced Chemical Engineering

Bachelor of Engineering Chemical Engineering with Business Management

June 2014

## Professional Experience

### **Sprint – Kansas City, KS**

May 2018 to August 2018

*Data Science Intern – Billing Solutions*

- Worked on and improved a Support Vector Machine model to predict billing errors using more than 100 GB of data
- Analyzed customer billing data to detect errors in estimated vs actual bill amounts
- Used Natural Language Processing and machine learning techniques including Logistic Regression and K-means clustering to find patterns in customer survey text
- Extracted data from large PL/SQL databases using ETL tools like Alteryx
- Gained insights into customer behavior by analyzing billing experience survey results
- Deployed local Microsoft SQL Server databases and accessed the data using R and Python libraries

### **University of Missouri, Columbia, MO**

August 2017 to April 2018

*Graduate Research Assistant*

- Topic modelling for text using Python through Latent Dirichlet Allocation
- Web scraping using Python through BeautifulSoup and Selenium

### **University of Missouri, Columbia, MO**

January 2017 to March 2017

*Consultant – Reynolds Journalism Institute*

- Collaborated with a team to develop an application for a project with the Associated Press for delivering the news on smart devices, especially the Amazon Echo
- Constructed three separate applications as proof of concept of our ideas
- Presented our results to top executives at the AP headquarters in New York City

### **University of Missouri, Columbia, MO**

May 2017 to August 2017

*Consultant – Sears*

- Worked on a machine learning project to analyze and classify online appliance sales chats using Python and associated packages and obtained a final classification accuracy of 90%
- Performed classification with multiple algorithms included in scikit-learn such as Naïve Bayes, Support Vector Machine, Logistic Regression and SVM with Stochastic Gradient Descent
- Validated results using K-fold cross validation and feature selection methods such as RFE and SelectKBest
- Extensively used regular expressions for text extraction and pandas for the tabular data manipulation
- Preprocessed text using NLTK including stemming, tokenizing and lemmatizing of the words

## Additional Information

Python – pandas, scikit-learn, NLTK, numpy, statsmodels, flask-ask, regular expressions, natural language processing, spacy, MS Excel, R, SPSS, PL/SQL, Alteryx, Apache Spark, AutoCAD, Solidworks, Tableau and MATLAB