

Malcolm Taylor

U.S. Citizen

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EDUCATION **Boston University**, Questrom School of Business *M.S. Mathematical Finance* Jan 2017
 University of Illinois at Urbana- Champaign *B.S. Mechanical Engineering* May 2015
 New York Data Science Academy, Big Data and Hadoop 6 Week Workshop Aug 2017

EXPERIENCE **Marcus by Goldman Sachs**, New York, NY - Decision Science 2018 - 2019

- Built personal loan underwriting model to access credit worthiness of customers at application using logistic regression; Reduced estimated losses by 0.7\$ mil/month, rejected additional 13 %
- Built credit risk portfolio snapshot models for existing customer products; Created production data pipeline to aggregate data from multiple data sources using PySpark
- Created dashboards using Python to track model performance and stability; Ensured model performance did not fall below threshold before needing to refit model

Argus Information and Advisory Services, White Plains, NY - Modeling Team 2017 - 2018

- Explained patterns in large data sets by using decision trees, linear regression and variable reduction to build explanatory, stable ensemble model
- Created ensemble models to predict the amount an account would spend on a given card type with over 700 variables from different sources using SQL, SAS, and R
- Implemented Gradient Boosted Tree modeling process for variable reduction and robust, stable models for various credit card attributes using R and H2O modeling platform
- Reduced team documentation time by automating document formulation from macro-enabled Excel workbooks using Python

PROJECTS **Tinder Data Analysis (Python)** , Bronx, NY – Personal Project 2019

- Generated report about personal Tinder usage, messages overall and over time; evaluated custom KPI's such as number of messages over time and word frequencies
- Explored multiple AWS patterns for deploying web-app including Lambda-S3 bucket triggers
- Made dashboard available via internet using AWS elastic beanstalk and python Dash framework
- Found most active period (app opens, matches and messages) was during Spring of Senior year of college undergraduate degree ; Found most common first phrases and cycles in dating history

Full Stack Note Taking Web App (AWS Node.js, React), Bronx, NY – Personal Project 2019

- Created note-taking app that allows a user to create a profile where notes can be created, stored and retrieved
- Followed tutorial from ServerlessStack.com to create backend of Amazon Web Services (AWS) services including S3, Lambda, Cognito with a react front end

Spotify Lyrics Analysis (Python, NLP), Bronx, NY – Personal Project 2018

- Created images that show song similarity based on lyrics using pre-trained word embeddings, T-Distributed Stochastic Neighbor Embeddings and K-nearest neighbors (KNN)
- Linked Spotify API for user playlist information with Genius API for song lyric information to create personalized application

Wine Quality Bayesian Analysis (Python), Bronx, NY – Personal Project 2017

- Analyzed dataset of 11 wine chemical components and the quality ratings for 1600 pairings
- Use logistic regression and random forest to create a baseline for the model – found sugar and alcohol to be most important variables when selecting high quality from low quality wines
- Used Bayesian logistic regression to analyze the effect of a prior on the analysis

SKILLS Python, SQL, PySpark, R, Statistical and Regression Analysis, Deep Learning, Bayesian Inference
INTERESTS Salsa Dancing, Sailing, Tennis