

HUMZA KHAN

DATA SCIENTIST

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Skills

PYTHON

NumPy
pandas
scikit-learn
NLTK
SpaCy
BeautifulSoup
SQLAlchemy
TextBlob

MACHINE LEARNING

Classification Models (Logistic Regression, SVM, KNN, Boosted Trees, Random Forest, Naive Bayes)
Linear Regressions (OLS, Lasso, Ridge)
PCA
LDA
NMF

TOOLS

SQL
GCP
PySpark
Databricks

DATA VISUALIZATION

Matplotlib
Seaborn
Tableau
Bokeh

Education

University of Illinois
at Springfield
B.S. Business
Administration 2016

Experience

METIS

Data Scientist

Chicago, IL
Jan. 2021 to Current

Metis is a licensed 12 week immersive data science bootcamp focused on project oriented learning. The core curriculum is centered around Python, statistics, supervised and unsupervised machine learning, exploratory data analysis, databases, and visualization techniques. Completed five self-designed data science projects from conception to presentation; including data collection, data management, exploratory data analysis, modeling, and visualizations. Project highlights include:

Predicting NBA Salaries

- Acquired 2010-2020 NBA salary data using BeautifulSoup to predict NBA salaries for 2021 using Linear Regression, Ridge, and Lasso.
- Refined my models using metrics such as R squared and mean squared error to find that Ridge was the best model.

Predicting Bank Churn

- Predicted whether a customer will stay or leave a bank by utilizing classification algorithms and engineering features to increase the AUROC Curve.
- Developed a pipeline using GridSearchCV to find the best classifier (Random Forest, Boosted Tree, KNN, Decision Tree, and Logistic Regression) with their precision scores.

Friends NLP Analysis

- Used NLP techniques such as topic modeling/NMF to understand overarching themes to the show.
- Created a graph using VADER sentiment analysis to find the happiest Friends character (Phoebe) using polarity, and used text preprocessing measures like NLTK to remove stop-words.

Green Family Stores Analysis

- Segmented customers using cluster analysis and developed a multi-class classification model to predict which car brand will be sold.
- Produced a Tableau dashboard for insights on where customers are coming from and comparing purchase and sales types.

FTI CONSULTING

Consultant II - Health Solutions

Chicago, IL
Dec. 2019 to Dec. 2020

- Supported the Labor Productivity team by performing benchmark refreshes and understanding the Labor Productivity Management System tool to create the staffing worksheet to benchmark departments according to scope of work. Helped clients save \$200,000-\$800,000 in opportunities.
- Pulled various department comparison detail reports to provide summaries and updated benchmark database quarterly in ActionOI to give clients updated numbers to benchmark.
- Assisted in client sales research to identify C-Suite executives and hospital systems that could be potential clients by pulling reports from Definitive Health and Salesforce. Identified 100-150 potential clients for FTI to pursue.

HOSPITAL SISTERS HEALTH SYSTEM

Analyst II - Productivity Analytics

Springfield, IL
July 2019 to Nov. 2019

- Designed and developed reports for executive leaders using Power BI to effectively communicate labor and productivity numbers.
- Utilized programs such as Axiom to create financial reports to analyze the data for volume-based productivity reporting, and Truven ActionOI to assist hospitals to lower their costs and increase their operational efficiency by comparing to industry benchmarks.
- Managed and updated the system balanced scorecard which displays the up to date numbers for a select number of metrics across all hospitals using Excel Power Query and VBA macros.

HSMS MEDICAL GROUP

Data Specialist - Quality Assurance

Springfield, IL
Feb. 2018 to July 2019

- Extracted and analyzed patient experience data from Press Ganey and Binary Fountain for physician leaders, focusing on process improvement initiatives in order to enhance and achieve optimal patient experience ratings and using Excel to effectively track certain metrics.
- Provided reports such as tracking on dashboards to assist the Provider VBI initiative. This initiative called for providers to effectively manage their patients and included an incentive.
- Performed a variety of database duties of a routine and technical nature in support of local systems to ensure all clinical data is processed, entered and cleaned according to policy and procedures established by the QI department.