

LOUIS SAGAN

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Skills

SUPERVISED MACHINE LEARNING

Linear/Logistic Regression
Tree-Based Models
Gradient Boosting Models
Neural Networks

UNSUPERVISED MACHINE LEARNING

Dimensionality Reduction
K Means
Hierarchical Clustering
DBScan

NATURAL LANGUAGE PROCESSING

Topic Modeling (NMF/LDA)
TF-IDF
Stemming and Lemmatization
Word Embedding

DATA VISUALIZATION

Tableau
Matplotlib
Seaborn
Plotly

DATA TOOLS

Pandas
Numpy
Sklearn
Spark
Keras

CLOUD/DATA STORAGE

SQL
PostgreSQL
AWS
MongoDB

OTHER

Git
GeoPandas
Shapely

Data Science Projects

Visualizing Policing in Chicago

- Developed a Tableau Dashboard to view reported crimes in Chicago in 2019
- Created a classification model to predict if a crime would result in arrest based on metrics of the half-mile radius around the crime location (School statistics, food inspections, facility information) and the housing metrics of the community the crime took place in
- Identified which factors correlated with the odds of an arrest being made, and what patterns were present in the model's predicted false positives and negatives

Recipe Recommender based on Food.com recipes and reviews

- Used NLP Techniques (Topic modeling/NMF, lemmatization, TF-IDF) on Food.com recipe reviews and tags
- Clustered recipes (K Means) in order to build Recommender that takes in a recipe the user likes and returns a similar recipe
- Developed a Tableau Dashboard to visualize recipe clusters

Classifying Risk of Heroin Usage

- To combat the opioid epidemic, built a tool that will take in behavioral survey scores, user information, and drug usage in the past month, and return risk of heroin usage
- Designed for early intervention

NBA Game Score Predictor

- Scraped data from Basketball Reference (BeautifulSoup) to predict the point differential (linear regression) of an NBA game based on averages of each teams 20 previous games

Event Attendance Recommendation using MTA Turnstile Data

- Combined NYC Subway data with census income information to optimize invitations to a fundraiser event (Pandas, FuzzyWuzzy)

Experience

Metis

Data Scientist

Chicago, IL
June 2020 to Sept. 2020

- Metis is an ACCET accredited 12week 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

Window Works

Project Manager

Bolingbrook, IL
Mar. 2018 to June 2020

- Developed business to business relationships with rental and design companies in the housing industry
- Managed over 140 customer accounts
- Generated over \$1.3 million in net revenue
- Effectively communicated with teams internally and externally to adhere to and exceed project deadlines

Education

University of Illinois Urbana-Champaign

Aug. 2015 to June 2017