FREDERICK LAM

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SKILLS

PROGRAMMING: Python, SQL, HTML, CSS
TOOLS: Conda, Git, Dbeaver, Flask, Streamlit, AWS Services, Tableau, PowerPoint, Excel
MACHINE LEARNING: Unsupervised/Supervised Learning, Predictive Modeling, Classification, NLP, Recommendation Systems

PROJECTS

Creating a Collaborative Filtering Recommender for Anime

- Requested data from Jikan, which is an unofficial open source API for MyAnimeList, then fit and tested the cleaned data using Surprise's SVD algorithm
- Organized the predicted data into a pandas DataFrame which was then used to create a input structure that output a specified user's recommendations based off anime they hadn't previously reviewed
- Created and deployed an interactive streamlit app that allows the user to upload a .csv of their own watch history/reviews and filter out their recommendations based off a multi-select of genres and MPAA ratings

Predicting a Win/Loss Using Teamfight Tactics Matchmaking Data

- Used matchmaking data taken from Riot Game's API uploaded on kaggle, which was then cleaned and uploaded onto an AWS EC2 Postgresql database
- Pulled the data from the EC2 using SQL, then fit and tested the data into multiple classification algorithms and ended up finalizing on using Random Forest Classifier
- Created a interactive flask app that allows the user to create their own team composition and output the odds of a win, as well as a classification of a win or loss based off a threshold

Topic Modeling on FGLI Student Blog Posts About COVID-19

- Web scrapped blog posts about COVID-19 submitted by FGLI students shared by Rise First, an organization that supports FGLI students through online resources, and organized the text into a pandas dataframe for NLP analysis
- Cleaned and preprocessed the text using tools such as NLTK's MWETokenizer and WordNetLemmetizer, then performed data vectorization and dimensionality reduction to generate a topic x term matrix
- Used the topic x term matrix to determine topic labels via the term weights, which resulted in 4 topics (Personal Health, Money, Anxiety, and Fear), then transformed the matrix into a document x topic matrix to display the topic weights within each document

EXPERIENCE

Metis, *Data Scientist*, Chicago, IL — June 2020 - Sept. 2020

- Metis is an ACCET accredited 12 week immersive data science bootcamp focused on project oriented learning
- The core curriculum is centered around Python, statistics, supervised and unsupervised machine learning, complex machine learning algorithms, databases, and data presentation techniques
- Completed five self designed data science projects from conception to presentation; including data collection, data management, exploratory data analysis, modeling, and visualizations

VOLUNTEERING

Church of the Beloved, *Ministry Leader*
Chicago, IL

- As part of a close collaboration with the church staff, helped form and lead the breakdown/equipment cleanup ministry team at Church of the Beloved's Chicago South Loop campus
- Responsibilities included recruiting team members, scheduling members on a weekly basis, and overseeing the breakdown process

EDUCATION

Roosevelt University
Bachelor of Arts (major) Actuarial Science (minor) Finance 2018