ML and Data Science Road Map

WEEK 1

- Object Oriented Programming in Python
- Setting up and using Anaconda Environment
- Basic Markdown
- Project Review

WEEK 2

- Learn Pandas, Numpy, Matplotlib, Scikit learn
- Learn Encoding for Classification
- Plotting various graphs using Matplotlib
- Project Review

WEEK 3

- Understand significance of Confusion Matrix and Box plots
- Perform Exploratory Data Analysis
- Project Review

WEEK 4

- Learn various Metrics and Loss functions
- Perform Exploratory Data Analysis
- Create and evaluate a ML model
- Final Project Review

Project as per week

WEEK 1

Write a program to calcuate area of a 3 and 4 sided polygon and describe all your function using Markdown

WEEK 2

Visualize and Encode the Wine quality dataset

WEEK 3

Get as many insights as possible from the Movie dataset. Also try cleaning it.

Final Project Week 4

Final Project - Beginner

Perform indepth EDA and Clustering to find the number of types of customers that spend at a Mall using the Mall Customers Dataset

Final Project - Advanced

Perform indepth EDA and use XGBoost to detect Parkinson's Disease.

Links for Datasets

Wine Quality Dataset link:
https://www.kaggle.com/rajyellow46/wine-quality?select=winequalityN.csv

Movie Dataset link:
https://www.kaggle.com/bharatnatrayn/movies-dataset-for-feature-extracion-prediction

Mall Customer's Dataset link:
https://www.kaggle.com/shwetabh123/mall-customers/code

Parkinson's Disease Dataset link:
https://archive.ics.uci.edu/ml/datasets/parkinsons