MIS 49Y APPLIED MACHINE LEARNING

TERM PROJECT

Project Description:

In your term project you are required to develop a machine learning application using python. You will demonstrate your code via jupyter notebook and make a presentation (15 - 20 slides) in class.

Following are the project steps:

1. Select your project topic, define problem statement and goal

   Choose one of the following topics for your project.

   - Payment Fraud (aka Credit Card Fraud in banks, payment fraud in telecom, fintech etc)
   - Customer Segmentation using Machine Learning Models for e/m-commerce
   - Mobility Prediction using Machine Learning
   - Bike Sharing / Bike Rental Demand Prediction
   - Car Sharing / Car Rental Demand Prediction
   - Predictive Maintenance using ML
   - Demand Prediction in E-Commerce
   - Recommendation Engines (aka Recommender Systems) for M-Commerce
   - Customer Churn (E-Commerce or Car/Bike Sharing)
   - Subscriber Fraud in (E-commerce, Car/Bike Sharing)
   - Prediction problems for Social Media with Machine Learning

   Note : If you have another project proposal(s) please share your proposal (topic, problem statement, dataset and goal) with me before 29th April.

2. Write a PROJECT FINAL REPORT describing (27th May)

   Project Final Report will cover the following sections:

   - Problem Statement and Goal : (max 500 words)
   - Literature Search : (max 1000 words)
   - Dataset Description : (max 200 words for each dataset, one dataset is ok, more than one dataset is also fine)
   - Methods (ML etc) Used: (max 1000 words)
   - Experiment Results: (max 1000 words)
   - Discussion: (max 300 words)
   - Conclusion : (max 300 words)

3. **Presentation and Code Explanation**

Presentation:

Summary of your work in power point slides (ppt or pptx). Feel free to include graphs, text, tables or any other method to explain your work in your presentation. Please make an effective story telling presentation (focus on technical as well as business outcome, reasons, conclusion etc). You will also demonstrate your code via jupyter notebook and make a presentation (15 -20 slides) in class via zoom.

Code Explanation File:

Imported packages, functions, source code, flowchart, architecture etc. explanations.

4. **Delivery / Submission** (27th May)

Before your presentation make sure that you have up-loaded the following files:

- Project source code with a read me file
- Code Explanation File
- Dataset (s)
- Project Final Report (doc, docx, pdf)
- Presentation File (ppt, pptx)

5. **Grading (30 points)**

Project Final Report : 40 % of 30 points
Presentation : 30 % of 30 points
Source Code and Code Explanation File : 30 % of 30 points

Assignments not presented in the class will not be graded.