Capstone 2 Project Proposal

Project Description:

The HR department of TechSolutions Inc. wants to understand key factors influencing employee attrition and job satisfaction. HR wants to predict employee performance based on historical performance data, employee characteristics, and other relevant variables.

Understanding factors which impact job satisfaction most, HR can take necessary steps to improve those areas which in return can increase employee retention rate.
For this analysis I will be using HR analytics case study data from Kaggle.
(https://drive.google.com/file/d/1VEHBd76ZsCMA96_NYs2b5z3BHSy-yKr-/view?usp=sharing).
This data set has job satisfaction features and other different job related features. I will perform analysis to understand how the job satisfaction feature varies with other features.

First I will be performing data wrangling and exploratory analysis on data and plot relations between different features and explain how these features are related to job satisfaction, which is survey results having values 1 to 4. Then I will apply supervised machine learning modeling to make predictions of employee job satisfaction.

In order to study–through the models–the impact of features on the target, I will use machine learning explainability approaches. This problem can be modeled using both linear and logistic regression algorithms. Job satisfaction levels can be divided into two classes to use a classification models, and it can also be used as percentage of satisfaction in linear regression.

Project Deliverables:

Code - Jupyter notebooks that will developed
Project Report - PDF
Presentation - Powerpoint slides

All the project documentation will be uploaded in the Github repository.