**Summary:**

This project deepened my machine learning knowledge significantly and I strengthened my ability to apply concepts that I learned from textbooks, blogs and various other sources, on a different type of problem. This project had a heavy focus on the data preparation part, since this is what data scientists work on most of their time.

I started with the data exploration where I got a feeling for the dataset, checked about missing data and there is no missing values in dataset.the dataset is very clear. For this process I used seaborn and matplotlib to do the visualizations.Afterwards I started training machine learning model which is XGBoost algorithm mainly designed for speed and performance and it is fast. and i did cross validate with Kfold and thn again cross checked with XGBoost with more parameters. And i find the Accuracy score and later i predict the questions what were asked by INX Future Inc.-

1) Department wise performances.

2) Top 3 Important Factors effecting employee performance.

3) A trained model which can predict the employee performance and finally

4) Recommendations to improve the employee performance based on insights from analysis with the help of dataset