Model Optimization and Tuning Phase

Date	15 March 2024
Team ID	738303
Project Title	Machine Learning Approach For Employee Performance Prediction
Maximum Marks	10 Marks

Model Optimization and Tuning Phase

The Model Optimization and Tuning Phase involves refining machine learning models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

Hyperparameter Tuning Documentation (6 Marks):

Hyperparameter tuning task is not mentioned in smartbridge portal as a task or subtask,so we did't do it.Below is the proof:

Guided Project | **Project Workspace**

- **Data Collection**
  - + **Download The Dataset**
- **Visualizing And Analyzing The Data**
  - **Importing The Libraries**
  - **Read The Dataset**
  - **Correlation Analysis**
  - **Descriptive Analysis**
- **Data Pre-Processing**
  - **Checking For Null Values**
  - **Handling Date & Department Column**
  - **Handling Categorical Values**
  - **Splitting Data Into Train And Test**

Guided Project   **Project Workspace**

Splitting Data Into Train And Test

- Model Building

  Linear Regression Model

  Random Forest Model

  Xgboost Model

  Compare The Model

  Evaluating Performance Of The Model And Saving The Model

- Application Building

  Building Html Pages

  Build Python Code

  Run The Application

  Output