Project 4: Machine Learning (Python)

Requirements

You need to produce a Python notebook that builds a classifier from the given dataset. Please provide explanations of each step of the process, from data exploration to the final model evaluation.

* Data Cleaning and Preparation: In this case the data is relatively clean, but you may still need some preprocessing, such as scaling.
* Model Selection: Train at least two models on the dataset. Clearly indicate which metrics you used and the performance of each model. Be sure to address any imbalance in the data, as well as using an appropriate train/test data split.
* Performance Optimization: Use regularization, hyperparameter tuning, or other techniques to further optimize your chosen model and/or help select the best model.