Pro1d - 8 models Report

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## Introduction

I will compare between regressor models or classifier models, depending on the problem/question the data represents.

## Regressor Models:

* Decision tree regressor
* Random forest regressor
* XGB regressor
* Linear Ridge regressor
* Bayesian Ridge regressor
* K Nearest Neighbors regressor
* MLP Neural network regressor

## Classifier Models:

* Decision tree classifier
* Random forest classifier
* XGB classifier
* Linear Ridge classifier
* Bayesian Ridge classifier
* K Nearest Neighbors classifier
* MLP Neural network classifier

# Advertising

Type of model: regressor

Best model: XGB regressor

Root mean squared error (RMSE) = 0.8716

# Auto

Type of model: classifier

Best model: XGB regressor classifier and Random Forest classifier

Accuracy = 69.6203%

# College

Type of model: regressor

Best model: Rigde regressor

Root mean squared error (RMSE) = 12.1351

# Credit

Type of model: regressor

Best model: XGBoost regresor

Root mean squared error (RMSE) = 87.6719

# Heart

Type of model: classifier

Best model: MLPClassifier (XGB regressor & GaussianNB are also good)

Root squared mean error = 88.5246%

# Income

Type of model: regressor

Best model: XGB regressor

Root squared mean error = 5.4018

# Saheart

Type of model: classification

Best model: GaussianNB classifier

Root squared mean error = 73.1183%