

## Regression

**Neural networks(regression):-**

**MultilayerPerceptron:**

**For Brightness:-**

Results for brightness prediction:

Root Mean Squared Error (RMSE): 15.382103073940078

R2 Score: 0.9910166605836039

**Results for confidence prediction:**

Root Mean Squared Error (RMSE): 16.35904110918971

R2 Score: 0.82095797848786

## Classification

Binary Classification (wildfire):

- SVM
  - AUC: 0.8325664535906806
  - Accuracy: 0.7775320432269415
- Logistic Regression:
  - AUC: 0.8269593885213543
  - Accuracy: 0.7817039457150038

Random Forest Classifier:

Random Forest Accuracy = 0.9496784565916399

GBT Classifier:

GBT Accuracy = 0.9306346705449845

**MultilayerPerceptron:-(classification)**

**Root Mean Squared Error (RMSE):** 0.01010642515563663

R2: 0.9995679150261572

Accuracy: 0.9998978601705735  
F1 Score: 0.9998978575948305