

Brain Tumor Classifier Report

Analysis Results:

Best Classifier: Random Forest

Feature Importances: Feature Importance 0 Red_Blood_Cell_Count_million/uL 0.115390 1 Hemoglobin_g/dL 0.112898 2 Tumor_Size_cm 0.103983 3 White_Blood_Cell_Count_K/uL 0.099792 4 Cholesterol_mg/dL 0.090208 5 Blood_Pressure_mmHg 0.088403 6 Age 0.085306 7 Blood_Sugar_mg/dL 0.080583 8 Seizures 0.017654 9 Memory_Loss 0.017469 10 Personality_Changes 0.017245 11 Family_History 0.017178 12 Coordination_Difficulty 0.016345 13 Difficulty_Speaking 0.016192 14 Anxiety 0.015851 15 Nausea 0.015686 16 Difficulty_Concentrating 0.015349 17 Vomiting 0.015144 18 Vision_Problems 0.015116 19 Balance_Problems 0.015061 20 Depression 0.014663 21 Headache 0.014483

Soft Voting Classifier Accuracy: 0.9016666666666666

Hard Voting Classifier Accuracy: 0.9016666666666666

Feature	Importance
Red_Blood_Cell_Count_million/uL	0.11538973943116321
Hemoglobin_g/dL	0.112898369920877
Tumor_Size_cm	0.10398294093991883
White_Blood_Cell_Count_K/uL	0.09979201051047833
Cholesterol_mg/dL	0.09020832496647424
Blood_Pressure_mmHg	0.08840338172864566
Age	0.08530641369090887
Blood_Sugar_mg/dL	0.08058294930979537
Seizures	0.017653742946329088
Memory_Loss	0.017468867838951067

Personality_Changes	0.0172452538562499
Family_History	0.01717763829947139
Coordination_Difficulty	0.0163454135487904
Difficulty_Speaking	0.016192195741799913
Anxiety	0.015850924767652506
Nausea	0.015685987049473025
Difficulty_Concentrating	0.015349033459726238
Vomiting	0.015143764252871643
Vision_Problems	0.015116406999949743
Balance_Problems	0.015061282046692182
Depression	0.014662716707963234
Headache	0.014482641985818145