**RANDOM FOREST CLASSIFIER**

**FLUX ONLY :**

**Target Variable: Cancer Stage**

MCC: 0.010143380824793546

Validation score: 0.2203093206603643

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[0 1 0 0 0 0 0]

[0 9 7 1 2 2 0]

[0 8 9 0 2 2 0]

[0 3 3 0 0 1 0]

[0 2 9 2 1 1 0]

[0 2 4 3 0 0 1]

[0 1 5 1 0 1 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.19 |
| RECALL | 0.23 |
| F1-SCORE | 0.19 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.09882586197996397

Validation scores: 0.2947882405650432

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 1 2 0 1 0 4]

[ 4 6 0 4 0 4]

[ 0 0 0 0 0 1]

[ 5 4 0 7 0 4]

[ 0 2 0 0 0 3]

[ 6 4 0 7 1 13]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.33 |
| RECALL | 0.33 |
| F1-SCORE | 0.33 |
| SUPPORT | 83 |

**GENES ONLY:**

**Target Variable: Cancer Stage**

MCC: 0.03950373739985042

Validation score: 0.26318480591725374

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 1 0 0 0 0 0]

[ 0 17 1 0 1 2 0]

[ 0 15 1 1 1 3 0]

[ 0 6 0 1 0 0 0]

[ 0 9 5 0 0 1 0]

[ 0 5 2 1 0 2 0]

[ 0 5 0 0 1 2 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.15 |
| RECALL | 0.25 |
| F1-SCORE | 0.17 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC -0.010040293592226905

**Validation Score:** 0.34929327669484217

Confusion Matrix, without normalization

[[ 1 0 0 1 0 6]

[ 3 2 0 1 0 12]

[ 1 0 0 0 0 0]

[ 4 3 0 2 0 11]

[ 1 1 0 0 0 3]

[ 4 2 0 6 0 19]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.25 |
| RECALL | 0.29 |
| F1-SCORE | 0.25 |
| SUPPORT | 83 |

**CLINICAL DATA:**

**Target Variable: Cancer Stage**

MCC: 0.2110508930264573

**Validation score:** 0.3788925885415449

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0 0]

[ 0 9 11 1 0 0 0 0]

[ 0 2 18 0 0 1 0 0]

[ 0 1 4 1 1 0 0 0]

[ 0 3 9 0 1 2 0 0]

[ 0 2 4 1 2 1 0 0]

[ 0 0 0 0 0 0 0 0]

[ 0 1 4 0 0 1 1 1]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.41 |
| RECALL | 0.37 |
| F1-SCORE | 0.32 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.2966701103263985

**Validation Score:** 0.4291398328637418

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 7 0 0 0 0 1]

[ 2 4 0 1 0 11]

[ 0 1 0 0 0 0]

[16 0 0 2 0 2]

[ 1 0 0 3 0 1]

[ 2 3 0 1 0 25]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.43 |
| RECALL | 0.46 |
| F1-SCORE | 0.40 |
| SUPPORT | 83 |

**ALL DATA SETS:**

**Target Variable: Cancer Stage**

MCC: 0.12390105338377591

**Validation score:** 0.2629632932953616

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 1 0 0 0 0 0]

[ 0 16 3 0 0 2 0]

[ 0 11 6 0 1 3 0]

[ 0 6 0 0 0 1 0]

[ 0 8 6 0 0 1 0]

[ 0 3 3 0 0 4 0]

[ 0 5 0 0 0 3 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.20 |
| RECALL | 0.31 |
| F1-SCORE | 0.23 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.078811305041767

**Validation Score:** 0.3243629966649416

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 2 0 0 1 0 5]

[ 2 4 0 2 0 10]

[ 1 0 0 0 0 0]

[ 5 2 0 5 0 8]

[ 0 1 0 2 0 2]

[ 3 4 0 7 0 17]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.32 |
| RECALL | 0.34 |
| F1-SCORE | 0.32 |
| SUPPORT | 83 |