**RANDOM FOREST CLASSIFIER**

**FLUX ONLY :**

**Target Variable: Cancer Stage**

MCC: 0.0528630071226206

Validation score: 0.2643282955711798

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0]

[ 0 1 19 0 0 1 0]

[ 0 0 17 0 0 4 0]

[ 0 0 5 0 1 1 0]

[ 0 1 8 0 1 5 0]

[ 0 0 5 0 3 2 0]

[ 0 0 3 0 1 4 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.24 |
| RECALL | 0.25 |
| F1-SCORE | 0.17 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.06499447923704904

Validation scores: 0.3368471958675944

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 2 1 0 3 0 2]

[ 3 5 0 3 0 7]

[ 1 0 0 0 0 0]

[ 3 6 0 1 0 10]

[ 0 1 0 1 0 3]

[ 3 7 0 2 0 19]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.27 |
| RECALL | 0.33 |
| F1-SCORE | 0.29 |
| SUPPORT | 83 |

**GENES ONLY:**

**Target Variable: Cancer Stage**

MCC: 0.08513001703498567

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 1 0 0 0 0 0]

[ 0 8 9 0 2 2 0]

[ 0 4 13 1 1 2 0]

[ 0 1 4 1 1 0 0]

[ 0 2 8 0 2 3 0]

[ 0 3 7 0 0 0 0]

[ 0 1 4 0 1 2 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.27 |
| RECALL | 0.29 |
| F1-SCORE | 0.25 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.01456661841910675

**Validation Score:**

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 2 0 6]

[ 0 4 0 2 0 12]

[ 0 0 0 0 0 1]

[ 3 1 0 1 0 15]

[ 0 0 0 0 0 5]

[ 2 2 0 4 0 23]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.29 |
| RECALL | 0.34 |
| F1-SCORE | 0.27 |
| SUPPORT | 83 |

**CLINICAL DATA:**

**Target Variable: Cancer Stage**

MCC: 0.2774731917392937

**Validation score:** 0.503422840073694

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 1 0 0 0 0 0]

[ 0 19 0 0 2 0 0]

[ 0 21 0 0 0 0 0]

[ 0 2 0 5 0 0 0]

[ 0 6 0 9 0 0 0]

[ 0 0 0 1 1 8 0]

[ 0 3 0 1 2 2 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.22 |
| RECALL | 0.39 |
| F1-SCORE | 0.26 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.40186213219532657

**Validation Score:** 0.5666996818277653

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 8 0 0]

[ 0 1 0 0 0 17]

[ 0 0 0 0 0 1]

[ 1 0 0 18 0 1]

[ 0 0 0 0 0 5]

[ 0 2 0 1 0 28]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.43 |
| RECALL | 0.57 |
| F1-SCORE | 0.46 |
| SUPPORT | 83 |

**ALL DATA SETS:**

**Target Variable: Cancer Stage**

MCC: 0.29530759609184853

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 1 0 0 0 0 0]

[ 0 19 0 0 2 0 0]

[ 0 21 0 0 0 0 0]

[ 0 2 0 2 3 0 0]

[ 0 6 0 4 5 0 0]

[ 0 0 0 1 1 8 0]

[ 0 1 0 2 4 1 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.28 |
| RECALL | 0.41 |
| F1-SCORE | 0.32 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.3863414012458029

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 4 0 0 4 0 0]

[ 0 1 0 0 0 17]

[ 0 0 0 0 0 1]

[14 0 0 5 0 1]

[ 0 0 0 0 4 1]

[ 1 0 0 0 0 30]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.66 |
| RECALL | 0.53 |
| F1-SCORE | 0.46 |
| SUPPORT | 83 |