**RANDOM FOREST CLASSIFIER**

**FLUX ONLY :**

**Target Variable: Cancer Stage**

MCC: 0.0

Validation score: 0.18810651788776994

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 0 1 0 1]

[ 1 1 5 0 0 0 7]

[ 0 5 11 0 2 0 6]

[ 0 0 1 0 1 0 2]

[ 0 0 6 0 3 0 4]

[ 0 0 1 0 0 0 0]

[ 0 3 10 0 5 0 4]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.04 |
| RECALL | 0.20 |
| F1-SCORE | 0.07 |
| SUPPORT | 80 |

**Target Variable: Primary Tumour Site**

MCC: 0.0

Validation scores: 0.19220525488147192

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 2 0 0 0 0]

[ 0 0 14 0 0 0 0]

[ 0 0 24 0 0 0 0]

[ 0 0 4 0 0 0 0]

[ 0 0 13 0 0 0 0]

[ 0 0 1 0 0 0 0]

[ 0 0 22 0 0 0 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.09 |
| RECALL | 0.30 |
| F1-SCORE | 0.14 |
| SUPPORT | 80 |

**GENES ONLY:**

**Target Variable: Cancer Stage**

MCC: 0.0

Validation score: 0.2929975795050551

CONFUSION MATRIX:

Normalized confusion matrix

[[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]

[0. 0. 1. 0. 0. 0. 0. 0. 0.]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.08 |
| RECALL | 0.29 |
| F1-SCORE | 0.13 |
| SUPPORT | 80 |

**Target Variable: Primary Tumour Site**

MCC: -0.013321895359344143

**Validation Score:** 0.2036802061472447

Confusion Matrix, without normalization

[[ 0 2 0 0 0 0 0]

[ 0 11 1 0 0 0 2]

[ 0 20 2 0 0 0 2]

[ 0 2 1 0 1 0 0]

[ 0 12 0 0 0 0 1]

[ 0 0 1 0 0 0 0]

[ 0 17 2 0 1 0 2]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.19 |
| RECALL | 0.19 |
| F1-SCORE | 0.13 |
| SUPPORT | 80 |

**CLINICAL DATA:**

**Target Variable: Cancer Stage**

MCC: 0.14978387234207427

**Validation score:** 0.2506865277290341

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 0 0 0 1 0 0 0]

[ 0 6 3 0 1 0 0 2 0 0]

[ 0 3 10 0 2 5 0 3 0 0]

[ 0 0 0 0 0 0 0 0 0 0]

[ 0 0 4 0 0 7 0 0 0 0]

[ 0 0 4 1 1 9 0 1 0 0]

[ 0 0 0 0 0 1 0 0 0 0]

[ 0 2 3 0 2 3 0 1 0 0]

[ 0 0 2 0 0 1 0 0 0 0]

[ 0 0 2 0 0 0 0 0 0 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.27 |
| RECALL | 0.33 |
| F1-SCORE | 0.29 |
| SUPPORT | 80 |

**Target Variable: Primary Tumour Site**

MCC: -0.03927995627089584

**Validation Score:** 0.19407281486262215

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 0 0 0 2]

[ 1 0 10 0 1 0 2]

[ 0 1 16 0 2 0 5]

[ 0 0 3 0 1 0 0]

[ 0 1 7 0 1 0 4]

[ 0 0 0 0 1 0 0]

[ 0 0 17 0 2 0 3]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.19 |
| RECALL | 0.19 |
| F1-SCORE | 0.13 |
| SUPPORT | 80 |

**ALL DATA SETS:**

**Target Variable: Cancer Stage**

MCC: 0.011558614980013456

**Validation score:** 0.3590837627733198

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0 0 0]

[ 0 1 11 0 0 0 0 0 0]

[ 0 1 20 0 0 0 2 0 0]

[ 0 0 10 0 1 0 0 0 0]

[ 0 0 15 0 0 0 1 0 0]

[ 0 0 1 0 0 0 0 0 0]

[ 0 1 7 2 0 0 1 0 0]

[ 0 0 3 0 0 0 0 0 0]

[ 0 0 2 0 0 0 0 0 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.17 |
| RECALL | 0.28 |
| F1-SCORE | 0.16 |
| SUPPORT | 80 |

**Target Variable: Primary Tumour Site**

MCC: -0.017744852085396983

**Validation Score:** 0.20478705301347286

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 1]

[ 0 7 2 0 1 0 4]

[ 0 14 4 0 3 0 3]

[ 0 1 1 0 2 0 0]

[ 0 9 1 0 1 0 2]

[ 0 0 1 0 0 0 0]

[ 0 10 4 0 4 0 4]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.21 |
| RECALL | 0.20 |
| F1-SCORE | 0.18 |
| SUPPORT | 80 |