

```
Test size: 0.2
Model: top_DecisionTree
HyperParams:
{
  "criterion": [
    "entropy"
  ],
  "max_depth": [
    600,
    800
  ],
  "min_samples_split": [
    4,
    6,
    8
  ]
}
```

Classifications: Emotions

Confusion Matrix:

View Visual matrix at:

[./precision/confusion_matrix_figures/top_DecisionTree_emotions_0.png](#)

```
[[1137 41 18 54 126 25 13 28 11 12 14 8 1 43
  7 55 2 41 89 0 338 29 4 9 6 2 4 17]
 [ 59 646 21 43 37 4 12 12 12 5 19 5 6 15
  3 8 0 45 12 1 232 7 0 8 0 1 3 17]
 [ 24 34 325 143 35 17 11 36 4 31 37 30 3 6
  11 3 1 5 2 0 264 5 0 10 1 2 7 15]
 [ 60 63 196 301 92 22 51 49 12 59 87 49 10 11
  12 7 4 10 15 3 499 13 0 18 1 5 19 20]
 [184 42 56 124 534 70 43 41 41 46 76 12 13 21
  8 23 2 34 43 2 734 26 0 20 5 5 9 12]
 [ 45 17 22 35 56 127 10 15 6 12 19 0 2 3
  5 7 2 14 14 1 202 33 1 2 0 6 11 2]
 [ 28 32 28 55 51 9 243 114 5 9 27 6 5 5
  4 5 1 1 7 3 297 4 0 9 1 2 1 13]
 [ 36 18 28 63 54 17 135 356 7 7 14 4 3 12
  2 6 0 4 9 0 327 5 1 8 1 1 1 24]
 [ 15 9 9 18 27 12 10 14 106 15 9 1 1 12
  0 0 1 6 16 1 123 22 1 2 1 0 3 5]
 [ 40 23 44 85 66 22 16 13 5 129 54 25 6 5
  10 5 1 4 9 5 322 7 0 10 2 7 43 12]
 [ 40 38 81 154 101 23 69 28 5 66 298 19 9 7
  11 9 3 11 6 2 485 9 0 18 1 7 26 11]
 [ 16 25 59 94 28 5 11 6 4 21 31 105 5 3
  18 2 1 2 1 0 130 5 0 3 0 2 6 2]
 [ 12 11 19 21 21 6 9 6 2 15 10 12 33 1
  2 5 0 2 2 1 93 3 0 2 0 6 4 5]
 [ 76 31 17 26 41 5 14 28 8 6 3 2 0 94
  1 10 0 35 16 3 145 9 0 5 1 0 3 18]
 [ 10 8 14 21 15 5 8 5 4 12 13 10 2 2
  100 1 1 1 1 4 69 3 0 3 2 0 1 2]
 [112 11 6 12 29 19 3 11 2 4 6 0 1 13
```

```

0 1040 0 27 8 0 62 14 2 2 5 11 4 5]
[ 3 0 2 4 6 2 1 1 0 3 0 1 0 0
 1 0 5 0 0 0 15 0 1 1 0 3 9 0]
[101 98 8 26 53 14 5 7 6 4 11 1 1 35
 4 26 1 189 46 0 152 8 2 6 3 1 4 2]
[134 21 5 21 43 15 10 6 15 4 4 2 0 9
 3 13 0 46 507 0 125 7 0 3 0 1 8 2]
[ 6 4 8 15 17 16 4 3 1 9 8 3 2 0
 13 1 0 2 0 22 45 1 0 1 0 0 4 2]
[547 297 357 630 863 217 335 380 116 252 436 105 37 114
 73 75 10 135 117 28 5479 113 4 151 10 31 73 82]
[ 78 12 18 40 77 40 17 10 46 21 20 2 2 10
 4 14 1 23 8 0 245 209 0 4 1 3 5 4]
[ 38 4 2 4 12 5 5 0 1 5 7 1 0 0
 1 3 0 8 0 0 52 4 1 1 1 0 1 1]
[ 43 40 23 70 105 23 28 20 11 31 45 4 4 8
 8 7 1 13 7 1 379 12 1 48 1 6 15 18]
[ 19 3 2 6 19 9 2 3 0 4 2 0 0 2
 1 7 0 16 3 0 37 2 0 2 16 0 1 0]
[ 5 8 9 15 16 9 6 4 3 16 2 3 7 0
 1 11 1 0 1 0 36 1 0 7 0 89 21 1]
[ 29 14 30 58 37 21 15 7 10 80 43 11 9 2
 10 6 4 9 6 1 180 4 0 7 2 61 138 1]
[ 60 25 25 32 34 6 20 34 2 24 13 6 8 22
 6 6 0 13 2 1 198 2 0 10 0 0 3 139]]

```

Classsification Report:

View formatted classification report at:

[./precision/classification_reports/top_DecisionTree_0.txt](#)

	precision	recall	f1-score	support
admiration	0.38	0.53	0.45	2134
amusement	0.41	0.52	0.46	1233
anger	0.23	0.31	0.26	1062
annoyance	0.14	0.18	0.16	1688
approval	0.21	0.24	0.22	2226
caring	0.17	0.19	0.18	669
confusion	0.22	0.25	0.23	965
curiosity	0.29	0.31	0.30	1143
desire	0.24	0.24	0.24	439
disappointment	0.14	0.13	0.14	970
disapproval	0.23	0.19	0.21	1537
disgust	0.25	0.18	0.21	585
embarrassment	0.19	0.11	0.14	303
excitement	0.21	0.16	0.18	597
fear	0.31	0.32	0.31	317
gratitude	0.77	0.74	0.75	1409
grief	0.12	0.09	0.10	58
joy	0.27	0.23	0.25	814
love	0.54	0.50	0.52	1004
nervousness	0.28	0.12	0.17	187
neutral	0.49	0.50	0.49	11067
optimism	0.38	0.23	0.28	914
pride	0.06	0.01	0.01	157

realization	0.13	0.05	0.07	972
relief	0.26	0.10	0.15	156
remorse	0.35	0.33	0.34	272
sadness	0.32	0.17	0.23	795
surprise	0.32	0.20	0.25	691
accuracy		0.36		34364
macro avg	0.28	0.25	0.26	34364
weighted avg	0.36	0.36	0.36	34364

Classifications: Emotions

Confusion Matrix:

View Visual matrix at:

[./precision/confusion_matrix_figures/top_DecisionTree_sentiments_0.png](#)

```
[[1661 600 994 516]
```

```
 [ 851 4558 1620 745]
```

```
 [1499 2408 5384 1776]
```

```
 [ 821 1317 2549 7065]]
```

Classsification Report:

View formatted classification report at:

[./precision/classification_reports/top_DecisionTree_1.txt](#)

	precision	recall	f1-score	support
--	-----------	--------	----------	---------

ambiguous	0.34	0.44	0.39	3771
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negative	0.51	0.59	0.55	7774
----------	------	------	------	------

neutral	0.51	0.49	0.50	11067
---------	------	------	------	-------

positive	0.70	0.60	0.65	11752
----------	------	------	------	-------

accuracy		0.54		34364
----------	--	------	--	-------

macro avg	0.52	0.53	0.52	34364
-----------	------	------	------	-------

weighted avg	0.56	0.54	0.55	34364
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