

Model: top_MLP

HyperParams:

```
{
  "activation": [
    "logistic",
    "tanh",
    "relu",
    "identity"
  ],
  "hidden_layer_sizes": [
    [
      35,
      55
    ],
    [
      15,
      15,
      15
    ]
  ],
  "solver": [
    "adam",
    "sgd"
  ],
  "max_iter": [
    2
  ]
}
```

Classifications: Emotions

Confusion Matrix:

View Visual matrix at: [./precision/confusion_matrix_figures/top_MLP_emotions_1.png](#)

```
[[1105 26 11 7 46 7 1 10 7 5 3 5 0 12
  5 39 0 45 98 0 620 27 0 2 0 0 8 45]
 [ 33 710 6 8 6 0 2 4 1 1 3 1 2 1
  5 8 0 40 8 0 363 6 0 0 0 4 3 18]
 [ 4 16 265 55 12 4 1 7 0 6 11 24 1 0
  8 5 0 5 4 0 607 2 0 0 0 5 11 9]
 [ 22 43 100 108 36 3 7 18 6 4 34 44 0 4
  12 8 0 8 13 0 1161 9 0 0 0 7 21 20]
 [ 108 28 6 20 257 26 12 13 9 10 23 11 0 5
  4 20 0 28 43 0 1546 26 0 5 0 6 14 6]
 [ 18 6 3 3 14 70 3 4 4 1 9 2 0 0
  3 6 0 14 10 0 435 38 0 0 0 16 9 1]
 [ 12 19 9 10 9 2 93 52 1 0 14 4 0 2
  4 7 0 4 11 0 689 1 0 6 0 2 4 10]
 [ 18 12 6 7 11 2 24 177 3 5 3 5 2 4
  5 5 0 6 13 0 803 3 0 2 0 2 3 22]
 [ 6 9 1 1 7 6 2 1 93 0 0 2 0 4
  2 1 0 5 22 0 250 25 0 0 0 1 0 1]
 [ 9 18 15 14 19 2 4 3 4 56 12 15 2 0
  13 7 0 4 7 0 666 6 0 1 0 12 67 14]
 [ 14 27 19 34 33 5 22 6 0 10 82 18 2 1
```

```

10 10 0 10 6 0 1178 8 0 4 0 14 18 6]
[ 6 9 40 34 6 1 1 1 1 3 14 156 2 0
15 1 0 2 1 0 272 3 0 0 0 2 8 7]
[ 3 6 9 11 5 3 3 2 1 1 3 12 10 1
1 2 0 1 4 0 207 2 0 0 0 7 5 4]
[ 49 12 5 1 13 0 2 13 0 2 0 0 0 64
1 7 0 48 18 0 319 10 0 0 0 0 6 27]
[ 1 5 1 4 1 3 0 1 0 1 1 7 0 0
128 1 0 1 1 0 149 5 0 1 0 0 6 0]
[ 87 7 0 2 5 10 3 0 0 1 1 0 0 0
0 1079 0 46 8 0 115 20 0 0 0 21 3 1]
[ 1 0 0 0 0 1 0 0 0 0 0 0 0 0
3 2 0 0 0 0 39 0 0 0 0 4 7 1]
[ 66 99 2 4 12 4 0 6 1 1 0 0 0 13
4 26 0 224 60 0 279 2 0 0 0 1 4 6]
[ 60 13 2 0 8 3 0 2 0 1 0 0 0 0
0 9 0 28 656 0 207 7 0 0 0 2 3 3]
[ 1 1 3 7 3 4 0 2 1 5 1 1 1 0
16 1 0 1 0 0 121 5 0 0 0 0 12 1]
[ 271 215 122 102 178 83 69 143 37 41 112 64 5 19
49 67 0 93 121 0 8974 88 0 15 0 34 96 69]
[ 44 13 2 3 15 14 2 4 23 2 7 1 0 6
3 9 0 14 15 0 439 287 0 1 0 0 5 5]
[ 33 2 0 1 5 2 0 0 0 3 1 1 0 1
1 4 0 6 0 0 91 3 0 0 0 0 2 1]
[ 18 18 5 11 22 3 4 5 3 5 4 3 0 3
8 7 0 4 9 0 757 6 0 34 0 5 7 31]
[ 16 2 0 1 6 7 1 1 0 0 0 0 0 0
1 10 0 15 3 0 88 2 0 0 0 0 3 0]
[ 1 3 2 4 4 1 1 0 3 2 0 0 1 0
1 6 0 0 1 0 74 1 0 1 0 154 12 0]
[ 8 7 8 7 5 6 1 2 4 24 2 9 0 0
9 7 0 6 5 0 400 6 0 4 0 83 189 3]
[ 26 6 7 6 10 0 5 23 3 1 1 3 0 9
1 1 0 4 3 0 352 6 0 1 0 2 3 218]]

```

Classification Report:

View formatted classification report at:

[./precision/classification_reports/top_MLP_2.txt](#)

	precision	recall	f1-score	support
admiration	0.54	0.52	0.53	2134
amusement	0.53	0.58	0.55	1233
anger	0.41	0.25	0.31	1062
annoyance	0.23	0.06	0.10	1688
approval	0.34	0.12	0.17	2226
caring	0.26	0.10	0.15	669
confusion	0.35	0.10	0.15	965
curiosity	0.35	0.15	0.22	1143
desire	0.45	0.21	0.29	439
disappointment	0.29	0.06	0.10	970
disapproval	0.24	0.05	0.09	1537
disgust	0.40	0.27	0.32	585
embarrassment	0.36	0.03	0.06	303

excitement	0.43	0.11	0.17	597
fear	0.41	0.40	0.41	317
gratitude	0.80	0.77	0.78	1409
grief	0.00	0.00	0.00	58
joy	0.34	0.28	0.30	814
love	0.58	0.65	0.61	1004
nervousness	0.00	0.00	0.00	187
neutral	0.42	0.81	0.56	11067
optimism	0.48	0.31	0.38	914
pride	0.00	0.00	0.00	157
realization	0.44	0.03	0.06	972
relief	0.00	0.00	0.00	156
remorse	0.40	0.57	0.47	272
sadness	0.36	0.24	0.29	795
surprise	0.41	0.32	0.36	691
accuracy		0.44		34364
macro avg	0.35	0.25	0.27	34364
weighted avg	0.41	0.44	0.38	34364

Classifications: Emotions

Confusion Matrix:

View Visual matrix at:

[./precision/confusion_matrix_figures/top_MLP_sentiments_1.png](#)

```
[[ 961  629 1482  699]
 [ 253 4544 1934 1043]
 [ 643 2139 5795 2490]
 [ 251  981 2188 8332]]
```

Classsification Report:

View formatted classification report at:

[./precision/classification_reports/top_MLP_3.txt](#)

	precision	recall	f1-score	support
ambiguous	0.46	0.25	0.33	3771
negative	0.55	0.58	0.57	7774
neutral	0.51	0.52	0.52	11067
positive	0.66	0.71	0.69	11752
accuracy			0.57	34364
macro avg	0.54	0.52	0.52	34364
weighted avg	0.56	0.57	0.56	34364