Base MLP for Emotions Classification

True label \ Predicted label	admiration	amusement	anger	annoyance	approval	caring	confusion	curiosity	desire	disappointment	disapproval	disgust	embarrassment	excitement	fear	gratitude	grief	joy	love	nervousness	neutral	optimism	pride	realization	relief	remorse	sadness	surprise
admiration	89	57	32	97	104	23	51	50	24	53	79	24	8	26	16	54	5	31	47	5	1030	48	7	38	4	17	44	32
amusement	43	25	25	31	54	16	30	31	13	27	58	14	5	11	9	27	6	23	24	1	625	17	4	13	6	5	28	26
anger	49	43	21	39	44	18	27	21	11	21	37	17	5	13	6	36	2	13	29	2	532	17	1	22	4	7	23	11
annoyance	58	48	33	58	73	27	39	30	23	29	76	19	4	22	20	58	1	36	40	5	848	23	2	30	2	7	33	25
approval	100	67	36	80	94	27	51	48	18	48	99	27	14	27	25	45	5	42	35	7	1111	37	10	25	8	17	44	39
caring	30	23	11	22	31	6	19	14	5	13	36	10	1	6	8	19	3	20	16	2	379	18	1	16	2	7	12	12
confusion	47	22	26	33	39	17	18	25	14	16	47	15	5	11	9	23	2	17	17	2	484	21	1	21	4	5	19	15
curiosity	46	30	19	50	55	15	33	37	16	24	52	24	3	13	13	40	1	15	19	7	615	31	4	23	4	9	17	18
desire	24	6	14	16	20	5	6	17	3	11	15	4	1	7	4	6	0	5	6	0	198	8	0	13	1	3	8	7
disappointment	38	23	16	26	50	8	14	25	7	18	36	25	4	5	8	33	1	13	29	3	488	14	3	21	1	5	18	13
disapproval	64	50	27	55	69	26	25	38	17	29	64	16	5	18	17	46	3	26	25	2	810	27	5	25	5	8	27	26
disgust	21	15	15	17	26	3	12	14	7	15	26	11	1	13	2	15	2	11	9	0	336	12	2	11	1	2	9	11
embarrassment	18	8	8	7	17	3	6	6	4	6	11	1	0	4	4	6	2	3	8	0	147	3	0	8	2	4	3	4
excitement	25	16	13	14	28	7	12	8	10	6	31	10	3	11	6	14	1	15	15	0	312	15	0	9	2	2	10	12
fear	9	6	5	6	19	6	7	5	5	8	14	1	3	5	3	6	2	15	10	2	181	4	1	4	0	2	7	9
gratitude	63	40	19	43	78	20	28	30	6	25	60	16	7	18	13	36	3	33	23	7	718	18	8	26	5	10	26	21
grief	0	2	2	2	2	0	0	1	3	2	2	1	0	0	0	0	0	0	1	1	39	0	0	1	0	0	0	2
joy	34	14	14	29	44	13	18	18	10	18	31	13	4	4	9	28	2	12	27	6	432	13	4	13	0	5	16	21
love	41	32	18	43	44	13	15	24	4	21	47	14	6	10	10	33	1	14	22	2	552	17	3	20	2	5	14	13
nervousness	3	4	2	6	6	3	0	2	1	3	1	1	0	3	1	5	1	2	6	2	85	4	0	1	1	0	5	2
neutral	500	268	219	417	509	151	265	266	135	230	472	134	50	132	107	329	18	218	180	41	5530	224	33	229	20	62	184	173
optimism	41	24	11	25	44	15	25	18	7	16	45	5	6	9	8	30	1	15	18	1	450	10	2	14	4	5	17	15
pride	7	4	1	6	8	5	2	4	4	0	9	0	0	2	1	5	0	3	2	1	60	2	0	2	0	1	4	5
realization	38	18	14	22	44	10	20	23	13	21	37	10	4	11	6	26	0	22	21	1	477	21	1	14	4	5	19	9
relief	4	1	1	3	6	1	5	2	0	3	8	2	0	3	1	2	0	1	6	1	72	7	2	2	0	1	4	5
remorse	13	9	6	8	16	5	5	6	4	7	8	3	3	4	2	8	0	6	5	3	148	8	1	6	1	1	5	5
sadness	38	21	14	24	36	6	16	15	12	14	26	8	2	8	8	20	3	16	16	2	376	13	4	17	4	3	13	8
surprise	35	14	24	20	36	9	14	22	14	14	23	8	2	6	4	20	1	8	15	1	358	16	3	16	1	3	6	20

Top MLP for Emotions Classification

True label \ Predicted label	admiration	amusement	anger	annoyance	approval	caring	confusion	curiosity	desire	disappointment	disapproval	disgust	embarrassment	excitement	fear	gratitude	grief	joy	love	nervousness	neutral	optimism	pride	realization	relief	remorse	sadness	surprise
admiration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2095	0	0	0	0	0	0	0	0
amusement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1197	0	0	0	0	0	0	0	0
anger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1071	0	0	0	0	0	0	0	0
annoyance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1669	0	0	0	0	0	0	0	0
approval	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2186	0	0	0	0	0	0	0	0
caring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	742	0	0	0	0	0	0	0	0
confusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	975	0	0	0	0	0	0	0	0
curiosity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1233	0	0	0	0	0	0	0	0
desire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	408	0	0	0	0	0	0	0	0
disappointment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	945	0	0	0	0	0	0	0	0
disapproval	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1555	0	0	0	0	0	0	0	0
disgust	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	619	0	0	0	0	0	0	0	0
embarrassment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	293	0	0	0	0	0	0	0	0
excitement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	607	0	0	0	0	0	0	0	0
fear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	345	0	0	0	0	0	0	0	0
gratitude	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1400	0	0	0	0	0	0	0	0
grief	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	0
joy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	852	0	0	0	0	0	0	0	0
love	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1040	0	0	0	0	0	0	0	0
nervousness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0
neutral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1090	0	0	0	0	0	0	0	0
optimism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	881	0	0	0	0	0	0	0	0
pride	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	0	0	0	0	0	0	0	0
realization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	911	0	0	0	0	0	0	0	0
relief	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	0	0	0	0	0	0	0	0
remorse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	296	0	0	0	0	0	0	0	0
sadness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	743	0	0	0	0	0	0	0	0
surprise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	713	0	0	0	0	0	0	0	0

True label

admiration amusement anger annoyance approval caring confusion curiosity desire disappointment disapproval disgust embarrassment excitement fear gratitude grief joy love nervousness neutral optimism pride realization relief remorse sadness surprise

Predicted label

Base MLP for Emotions Classification with Stopwords

True label \ Predicted label	admiration	amusement	anger	annoyance	approval	caring	confusion	curiosity	desire	disappointment	disapproval	disgust	embarrassment	excitement	fear	gratitude	grief	joy	love	nervousness	neutral	optimism	pride	realization	relief	remorse	sadness	surprise
admiration	87	57	49	90	138	24	43	50	21	39	57	23	11	33	14	58	3	34	35	9	1037	54	5	44	2	10	40	28
amusement	51	34	29	43	85	6	27	30	5	26	33	16	9	18	4	38	5	17	23	5	576	28	2	29	5	8	27	18
anger	41	37	28	52	65	17	20	20	8	17	29	11	5	14	6	33	4	19	21	4	545	20	2	14	6	6	16	11
annoyance	74	41	47	61	91	21	44	30	10	40	49	12	10	26	5	52	1	24	35	3	846	41	5	31	2	11	32	25
approval	82	70	47	77	143	29	52	65	13	38	54	13	14	41	14	57	3	32	40	13	1094	51	9	45	5	14	47	24
caring	35	23	21	22	53	10	13	12	5	12	20	7	5	7	4	26	0	7	15	5	371	27	0	6	0	11	13	12
confusion	39	30	15	34	48	11	25	17	11	17	29	10	10	13	5	30	2	18	12	3	516	22	0	20	0	7	18	13
curiosity	60	38	31	41	75	12	24	30	13	18	37	5	6	18	6	36	4	19	18	7	620	41	0	24	5	5	28	12
desire	17	9	12	6	23	7	8	7	3	8	6	2	2	10	1	5	0	6	10	2	216	14	0	9	3	4	10	8
disappointment	46	20	24	36	53	14	26	26	9	17	23	9	7	12	5	22	0	18	10	4	480	20	6	18	5	5	22	8
disapproval	61	40	45	49	94	16	31	33	12	37	40	21	8	21	13	34	1	24	37	0	799	30	3	35	8	8	32	23
disgust	22	22	16	26	40	4	11	22	6	5	13	5	3	8	5	19	2	17	12	1	299	16	2	13	6	6	9	9
embarrassment	8	10	8	6	14	2	7	9	3	5	11	2	0	3	4	6	1	5	6	1	163	2	0	4	1	2	5	5
excitement	17	17	19	18	33	11	9	20	5	11	18	8	2	5	4	14	1	7	11	2	321	10	2	13	3	5	10	11
fear	15	4	14	12	27	4	10	6	3	3	9	6	4	8	1	10	0	4	6	0	172	4	0	9	1	4	6	3
gratitude	50	37	35	42	100	21	33	32	12	25	37	17	9	16	11	35	2	14	24	4	722	32	4	30	4	10	24	18
grief	2	3	1	2	5	1	2	1	0	0	3	0	0	2	0	1	0	1	0	0	31	3	1	1	0	0	0	1
joy	32	19	23	35	54	8	18	15	7	21	20	11	6	12	5	19	0	11	19	0	432	18	1	19	2	10	17	18
love	46	23	20	44	72	14	16	12	14	23	31	12	4	20	6	27	0	18	16	6	537	16	4	19	3	8	16	13
nervousness	8	3	3	4	12	5	2	3	1	3	6	2	0	3	1	4	0	0	2	0	71	3	0	5	0	3	2	4
neutral	455	312	272	397	671	125	239	222	98	230	339	108	54	152	72	276	11	171	218	36	5740	203	34	215	35	51	200	160
optimism	27	17	17	37	55	12	33	24	11	15	21	7	5	14	2	25	0	12	15	2	467	13	3	11	3	4	17	12
pride	8	5	3	5	6	0	4	3	2	1	3	1	1	4	0	6	0	2	1	1	66	3	2	2	0	3	4	2
realization	38	28	19	27	53	15	16	16	7	15	21	7	6	10	11	32	2	19	16	0	487	16	2	15	3	4	13	13
relief	5	3	4	3	12	1	0	2	4	4	4	3	1	1	2	3	0	2	1	0	74	3	0	5	0	1	5	0
remorse	18	5	7	13	20	3	2	5	2	8	10	3	2	5	2	6	0	3	4	0	152	7	1	7	1	2	3	5
sadness	37	14	17	25	48	11	12	11	4	20	16	8	3	22	3	23	2	17	12	3	384	12	1	11	0	4	11	12
surprise	30	26	15	30	45	10	17	12	3	13	21	7	0	9	6	19	1	20	18	0	361	11	1	8	1	3	15	11

Top MLP for Emotions Classification with Stopwords

True label \ Predicted label	admiration	amusement	anger	annoyance	approval	caring	confusion	curiosity	desire	disappointment	disapproval	disgust	embarrassment	excitement	fear	gratitude	grief	joy	love	nervousness	neutral	optimism	pride	realization	relief	remorse	sadness	surprise
admiration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2095	0	0	0	0	0	0	0
amusement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1197	0	0	0	0	0	0	0
anger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1071	0	0	0	0	0	0	0
annoyance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1669	0	0	0	0	0	0	0
approval	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2186	0	0	0	0	0	0	0
caring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	742	0	0	0	0	0	0	0
confusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	975	0	0	0	0	0	0	0
curiosity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1233	0	0	0	0	0	0	0
desire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	408	0	0	0	0	0	0	0
disappointment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	945	0	0	0	0	0	0	0
disapproval	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1555	0	0	0	0	0	0	0
disgust	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	619	0	0	0	0	0	0	0
embarrassment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	293	0	0	0	0	0	0	0
excitement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	607	0	0	0	0	0	0	0
fear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	345	0	0	0	0	0	0	0
gratitude	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1400	0	0	0	0	0	0	0
grief	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0
joy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	852	0	0	0	0	0	0	0
love	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1040	0	0	0	0	0	0	0
nervousness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0
neutral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1090	0	0	0	0	0	0	0
optimism	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	881	0	0	0	0	0	0	0
pride	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	0	0	0	0	0	0	0
realization	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	911	0	0	0	0	0	0	0
relief	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	0	0	0	0	0	0	0
remorse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	296	0	0	0	0	0	0	0
sadness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	743	0	0	0	0	0	0	0
surprise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	713	0	0	0	0	0	0	0

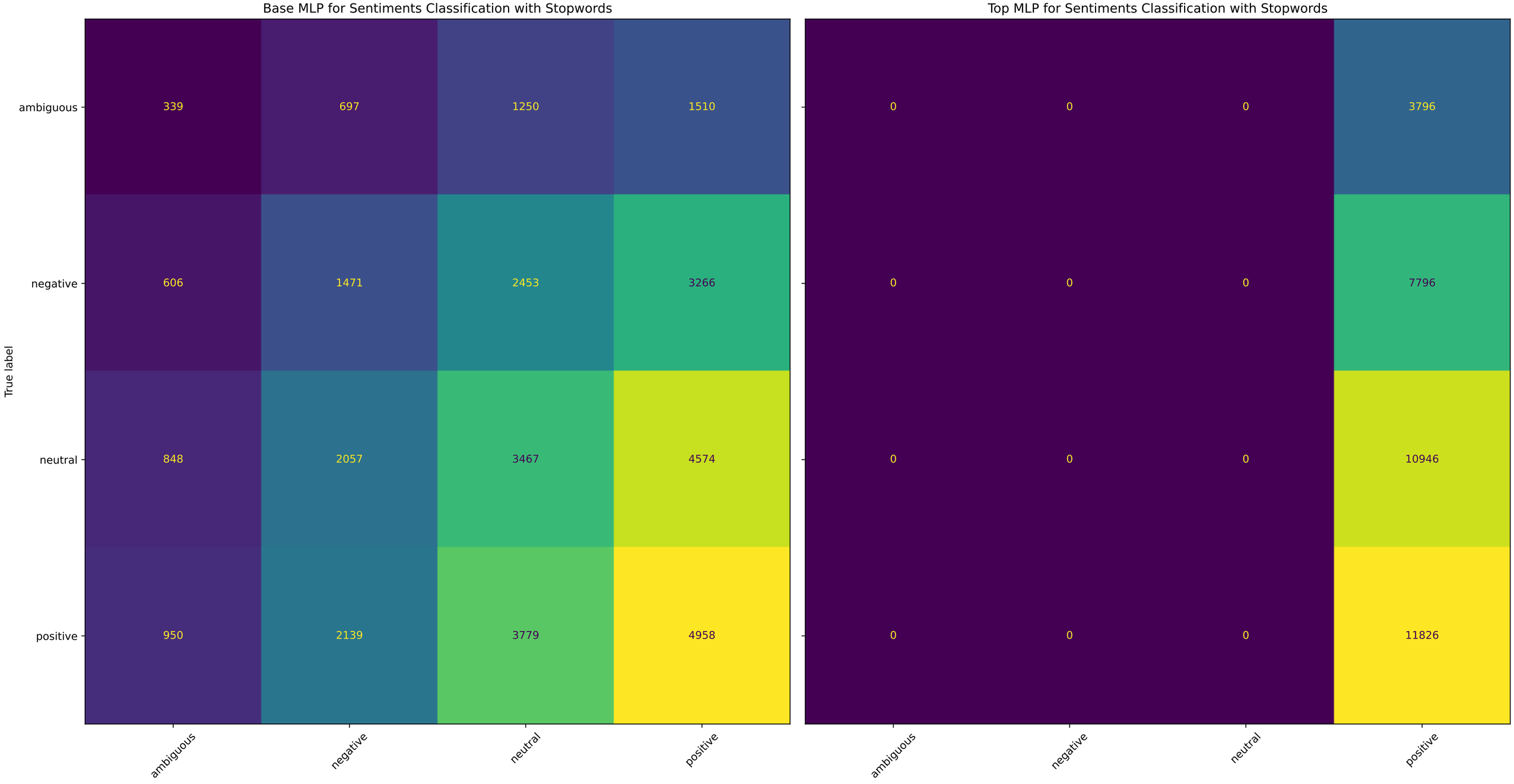
Predicted label

Base MLP for Sentiments Classification

True label \ Predicted label	ambiguous	negative	neutral	positive
ambiguous	310	738	1446	1302
negative	651	1612	2855	2678
neutral	875	2216	4108	3747
positive	977	2367	4418	4064

Top MLP for Sentiments Classification

True label \ Predicted label	ambiguous	negative	neutral	positive
ambiguous	0	0	0	3796
negative	0	0	0	7796
neutral	0	0	0	10946
positive	0	0	0	11826

Base MLP for Sentiments Classification with Stopwords

Top MLP for Sentiments Classification with Stopwords