

```
1 E:\Desktop\...\...\venv\Scripts\python.exe "D:\Bristol course\Data Science Dissertation\ExpBERT lab and thesis\BERT-IE-main\BERT-IE-main\BALD_MCD.py"
2 MCD_BALD_sampling_20epoch
3 Downloading data files: 100%|██████████| 1/1 [00:00 <?, ?it/s]
4 Extracting data files: 0%|          | 0/1 [00:00 <?, ?it/s] Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-6314d3102e2a4213/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
5 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 9.77it/s]
6 0%|          | 0/1 [00:00<?, ?it/s] Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-6314d3102e2a4213/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1. Subsequent calls will reuse this data.
7 100%|██████████| 1/1 [00:00<00:00, 27.42it/s]
8 11241
9 torch.Size([11241, 27])
10 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-30df1bbec6e04084/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
11 Downloading data files: 100%|██████████| 1/1 [00:00<00:00, 1003.90it/s]
12 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 111.51it/s]
13 0%|          | 0/1 [00:00<?, ?it/s] Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-30df1bbec6e04084/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1. Subsequent calls will reuse this data.
14 100%|██████████| 1/1 [00:00<00:00, 41.30it/s]
15 Downloading data files: 100%|██████████| 1/1 [00:00 <?, ?it/s]
```

```
16 Extracting data files: 100%|██████████| 1/1 [00:00<00 :00, 167.08it/s]
17 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-b0aed03b5d8adf62/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
18 100%|██████████| 1/1 [00:00<00:00, 59.03it/s]
19 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-b0aed03b5d8adf62/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1. Subsequent calls will reuse this data.
20 noexp_df.shape[0] last 11241
21 unexplained dataset length is:
22 11241
23 embedding begin
24 trian and val dataset length: 28350
25 MCD_BALD_sampling_20epoch
26 MCD_BALD_sampling_20epoch
27 MCD_BALD_sampling_20epoch
28 MCD_BALD_sampling_20epoch
29 MCD_BALD_sampling_20epoch
30 MCD_BALD_sampling_20epoch
31 MCD_BALD_sampling_20epoch
32 MCD_BALD_sampling_20epoch
33 torch.Size([2835, 30])
34 315.0
35 torch.Size([3150, 27])
36 ./embeddings/NEW_bertie_embeddings_textattack/bert-base-uncased-MNLI_subset_1.pt
37 Downloading data files: 100%|██████████| 1/1 [00:00<00:00, 1007.76it/s]
38 Extracting data files: 100%|██████████| 1/1 [00:00<00 :00, 95.20it/s]
39 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-13d732cca8165853/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
40 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
```

```
40 downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-13d732cca8165853/0.0
.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1. Subsequent calls will reuse this data.
41 100%|██████████| 1/1 [00:00<00:00, 13.02it/s]
42 test len 14445
43 Downloading data files: 100%|██████████| 1/1 [00:00<
00:00, 1004.14it/s]
44 Extracting data files: 100%|██████████| 1/1 [00:00<00
:00, 111.47it/s]
45 Generating train split: 0 examples [00:00, ? examples
/s]Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/default
-f1524a33f6498f04/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1...
46 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-f1524a33f6498f04/0.0
.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1. Subsequent calls will reuse this data.
47 100%|██████████| 1/1 [00:00<00:00, 41.12it/s]
48 preprocess_samples begin ...
49 uncertainty shape: 1530
50 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
51 classify begin
52 3211
53 0%|          | 0/30 [00:00<?, ?it/s]
MCD_BALD_sampling_20epoch
54 MCD_BALD_sampling_20epoch
55 343it [00:15, 179.28it/s]MCD_BALD_sampling_20epoch
56 MCD_BALD_sampling_20epoch
57 MCD_BALD_sampling_20epoch
58 MCD_BALD_sampling_20epoch
59 669it [00:33, 146.53it/s]MCD_BALD_sampling_20epoch
60 MCD_BALD_sampling_20epoch
61 710it [00:43, 146.53it/s]MCD_BALD_sampling_20epoch
62 MCD_BALD_sampling_20epoch
```

```
63 1039it [00:51, 128.18it/s]MCD_BALD_sampling_20epoch
64 MCD_BALD_sampling_20epoch
65 MCD_BALD_sampling_20epoch
66 1066it [01:08, 5.20it/s] MCD_BALD_sampling_20epoch
67 1411it [01:09, 178.68it/s]MCD_BALD_sampling_20epoch
68 MCD_BALD_sampling_20epoch
69 1420it [01:23, 178.68it/s]MCD_BALD_sampling_20epoch
70 1421it [01:30, 3.22it/s] MCD_BALD_sampling_20epoch
71 1756it [01:32, 157.87it/s]MCD_BALD_sampling_20epoch
72 MCD_BALD_sampling_20epoch
73 1775it [01:43, 157.87it/s]MCD_BALD_sampling_20epoch
74 MCD_BALD_sampling_20epoch
75 2112it [01:51, 174.21it/s]MCD_BALD_sampling_20epoch
76 MCD_BALD_sampling_20epoch
77 MCD_BALD_sampling_20epoch
78 2131it [02:07, 3.97it/s] MCD_BALD_sampling_20epoch
79 2471it [02:09, 141.74it/s]MCD_BALD_sampling_20epoch
80 MCD_BALD_sampling_20epoch
81 MCD_BALD_sampling_20epoch
82 2486it [02:26, 4.95it/s] MCD_BALD_sampling_20epoch
83 2819it [02:27, 155.26it/s]MCD_BALD_sampling_20epoch
84 MCD_BALD_sampling_20epoch
85 MCD_BALD_sampling_20epoch
86 2841it [02:44, 5.15it/s] MCD_BALD_sampling_20epoch
87 3183it [02:45, 166.76it/s]MCD_BALD_sampling_20epoch
88 MCD_BALD_sampling_20epoch
89 MCD_BALD_sampling_20epoch
90 MCD_BALD_sampling_20epoch
91 3531it [03:03, 146.24it/s]MCD_BALD_sampling_20epoch
92 MCD_BALD_sampling_20epoch
93 3550it [03:13, 146.24it/s]MCD_BALD_sampling_20epoch
94 MCD_BALD_sampling_20epoch
95 3901it [03:22, 169.90it/s]MCD_BALD_sampling_20epoch
96 MCD_BALD_sampling_20epoch
97 3905it [03:34, 169.90it/s]MCD_BALD_sampling_20epoch
98 MCD_BALD_sampling_20epoch
99 4236it [03:41, 150.80it/s]MCD_BALD_sampling_20epoch
100 MCD_BALD_sampling_20epoch
101 MCD_BALD_sampling_20epoch
102 4261it [03:57, 5.81it/s] MCD_BALD_sampling_20epoch
103 4608it [03:59, 168.13it/s]MCD_BALD_sampling_20epoch
```

```
104 MCD_BALD_sampling_20epoch
105 MCD_BALD_sampling_20epoch
106 4616it [04:15, 4.42it/s] MCD_BALD_sampling_20epoch
107 4954it [04:16, 164.57it/s] MCD_BALD_sampling_20epoch
108 MCD_BALD_sampling_20epoch
109 MCD_BALD_sampling_20epoch
110 MCD_BALD_sampling_20epoch
111 5323it [04:34, 140.84it/s] MCD_BALD_sampling_20epoch
112 MCD_BALD_sampling_20epoch
113 MCD_BALD_sampling_20epoch
114 MCD_BALD_sampling_20epoch
115 5659it [04:52, 132.60it/s] MCD_BALD_sampling_20epoch
116 MCD_BALD_sampling_20epoch
117 5680it [05:04, 132.60it/s] MCD_BALD_sampling_20epoch
118 MCD_BALD_sampling_20epoch
119 6019it [05:09, 171.02it/s] MCD_BALD_sampling_20epoch
120 MCD_BALD_sampling_20epoch
121 MCD_BALD_sampling_20epoch
122 6036it [05:26, 6.34it/s] MCD_BALD_sampling_20epoch
123 6382it [05:27, 152.33it/s] MCD_BALD_sampling_20epoch
124 MCD_BALD_sampling_20epoch
125 MCD_BALD_sampling_20epoch
126 MCD_BALD_sampling_20epoch
127 6737it [05:44, 139.61it/s] MCD_BALD_sampling_20epoch
128 MCD_BALD_sampling_20epoch
129 MCD_BALD_sampling_20epoch
130 MCD_BALD_sampling_20epoch
131 7084it [06:02, 122.07it/s] MCD_BALD_sampling_20epoch
132 MCD_BALD_sampling_20epoch
133 MCD_BALD_sampling_20epoch
134 7101it [06:18, 5.17it/s] MCD_BALD_sampling_20epoch
135 7426it [06:19, 171.34it/s] MCD_BALD_sampling_20epoch
136 MCD_BALD_sampling_20epoch
137 MCD_BALD_sampling_20epoch
138 7456it [06:37, 6.18it/s] MCD_BALD_sampling_20epoch
139 7793it [06:39, 147.58it/s] MCD_BALD_sampling_20epoch
140 MCD_BALD_sampling_20epoch
141 MCD_BALD_sampling_20epoch
142 7810it [06:54, 147.58it/s] MCD_BALD_sampling_20epoch
143 8155it [06:57, 142.26it/s] MCD_BALD_sampling_20epoch
144 MCD_BALD_sampling_20epoch
```

```
145 MCD_BALD_sampling_20epoch
146 MCD_BALD_sampling_20epoch
147 8500it [07:14, 147.52it/s]MCD_BALD_sampling_20epoch
148 MCD_BALD_sampling_20epoch
149 MCD_BALD_sampling_20epoch
150 MCD_BALD_sampling_20epoch
151 8865it [07:32, 171.59it/s]MCD_BALD_sampling_20epoch
152 MCD_BALD_sampling_20epoch
153 8875it [07:44, 171.59it/s]MCD_BALD_sampling_20epoch
154 MCD_BALD_sampling_20epoch
155 9222it [07:51, 162.79it/s]MCD_BALD_sampling_20epoch
156 MCD_BALD_sampling_20epoch
157 9230it [08:04, 162.79it/s]MCD_BALD_sampling_20epoch
158 MCD_BALD_sampling_20epoch
159 9571it [08:11, 133.34it/s]MCD_BALD_sampling_20epoch
160 MCD_BALD_sampling_20epoch
161 MCD_BALD_sampling_20epoch
162 9586it [08:28, 5.74it/s] MCD_BALD_sampling_20epoch
163 9909it [08:29, 141.99it/s]MCD_BALD_sampling_20epoch
164 MCD_BALD_sampling_20epoch
165 MCD_BALD_sampling_20epoch
166 9940it [08:44, 141.99it/s]MCD_BALD_sampling_20epoch
167 10273it [08:47, 142.35it/s]MCD_BALD_sampling_20epoch
168 MCD_BALD_sampling_20epoch
169 MCD_BALD_sampling_20epoch
170 MCD_BALD_sampling_20epoch
171 10628it [09:04, 140.29it/s]MCD_BALD_sampling_20epoch
172 MCD_BALD_sampling_20epoch
173 MCD_BALD_sampling_20epoch
174 MCD_BALD_sampling_20epoch
175 MCD_BALD_sampling_20epoch
176 MCD_BALD_sampling_20epoch
177 10650it [09:24, 140.29it/s]global t is : 0
178 test epoch results {'accuracy': 0.5607843137254902
, 'f1_weighted': 0.5231519664212614, 'f1_macro': 0.
41562158787340486, 'f1': array([0.85642317, 0.
05263158, 0.37647059, 0.16666667, 0.53603604,
179 0.06315789, 0.55345912, 0.59811482, 0.
53763441]), 'precision': array([0.84158416, 1
. , 0.44444444, 0.6 , 0.5173913 ,
180 0.5 , 0.61111111, 0.48811189, 0.]
```

```
180 56818182]), 'recall': array([0.87179487, 0.02702703
    , 0.32653061, 0.09677419, 0.55607477,
181      0.03370787, 0.50574713, 0.77212389, 0.
    51020408])}
182 val epoch results {'accuracy': 0.580952380952381, '
f1_weighted': 0.5369599370743843, 'f1_macro': 0.
42709000157245913, 'f1': array([0.88607595, 0
    ., 0.47058824, 0.06896552, 0.52272727,
183      0.0952381 , 0.66666667, 0.62650602, 0.
    50704225]), 'precision': array([0.8974359 , 0
    ., 0.66666667, 0.33333333, 0.52272727,
184      0.5      , 0.6969697 , 0.49681529, 0.
    58064516]), 'recall': array([0.875      , 0
    ., 0.36363636, 0.03846154, 0.52272727,
185      0.05263158, 0.63888889, 0.84782609, 0.45
    ])}

186 10650it [09:25, 18.85it/s]
187 [tensor([[0.1282, 0.0769, 0.1055, 0.1679, 0.0739, 0.
    0807, 0.1051, 0.1158, 0.1461]]), tensor([[0.1257, 0.
    0675, 0.1038, 0.1735, 0.0806, 0.0824, 0.1058, 0.1311
    , 0.1297]]), tensor([[0.1296, 0.0684, 0.0961, 0.1669
    , 0.0947, 0.0871, 0.0972, 0.1359, 0.1239]]), tensor
    ([[0.1357, 0.0728, 0.1079, 0.1747, 0.0756, 0.0810, 0
    .1002, 0.1251, 0.1270]]), tensor([[0.1278, 0.0702, 0
    .1117, 0.1725, 0.0834, 0.0780, 0.1013, 0.1032, 0.
    1519]]), tensor([[0.1270, 0.0704, 0.1123, 0.1842, 0.
    0743, 0.0710, 0.0958, 0.1229, 0.1421]]), tensor([[0.
    1195, 0.0684, 0.1053, 0.1633, 0.0863, 0.0746, 0.1163
    , 0.1156, 0.1507]]), tensor([[0.1187, 0.0806, 0.1143
    , 0.1917, 0.0747, 0.0702, 0.0988, 0.1124, 0.1387
    ]]), tensor([[0.1367, 0.0857, 0.1205, 0.1776, 0.0747
    , 0.0766, 0.0974, 0.0999, 0.1309]]), tensor([[0.1003
    , 0.0845, 0.0998, 0.1576, 0.0737, 0.0778, 0.1175, 0.
    1277, 0.1612]]), tensor([[0.1095, 0.0766, 0.1054, 0.
    1683, 0.0669, 0.0727, 0.1169, 0.1310, 0.1527]]),
    tensor([[0.1193, 0.0741, 0.1119, 0.1856, 0.0724, 0.
    0719, 0.1068, 0.1098, 0.1482]]), tensor([[0.1110, 0.
    0796, 0.1042, 0.1798, 0.0800, 0.0651, 0.1028, 0.1245
    , 0.1529]]), tensor([[0.1037, 0.0732, 0.1223, 0.1778
    , 0.0768, 0.0812, 0.1090, 0.1070, 0.1490]]), tensor
    ([[0.1328, 0.0700, 0.1177, 0.1739, 0.0768, 0.0813, 0
```

```

187 .0985, 0.1195, 0.1296]])), tensor([[0.1065, 0.0749, 0
.1037, 0.1802, 0.0748, 0.0774, 0.1012, 0.1266, 0.
1545]])), tensor([[0.1269, 0.0730, 0.1008, 0.1788, 0.
0777, 0.0807, 0.1035, 0.0975, 0.1611]])), tensor([[0.
0830, 0.0774, 0.1076, 0.1930, 0.0799, 0.0739, 0.1086
, 0.1108, 0.1659]])), tensor([[0.1159, 0.0812, 0.0973
, 0.1709, 0.0827, 0.0871, 0.1000, 0.1234, 0.1415
]])), tensor([[0.1022, 0.0688, 0.1123, 0.1626, 0.0884
, 0.0836, 0.1203, 0.1242, 0.1376]])), tensor([[0.1086
, 0.0718, 0.1051, 0.1950, 0.0849, 0.0696, 0.1017, 0.
1201, 0.1432]])), tensor([[0.1077, 0.0751, 0.1167, 0.
1842, 0.0768, 0.0657, 0.1149, 0.1099, 0.1490]])),
tensor([[0.1126, 0.0797, 0.0909, 0.1673, 0.0774, 0.
0704, 0.1086, 0.1221, 0.1710]])), tensor([[0.1010, 0.
0880, 0.1203, 0.1714, 0.0928, 0.0756, 0.0932, 0.1071
, 0.1506]])), tensor([[0.1376, 0.0689, 0.1038, 0.1816
, 0.0876, 0.0740, 0.0958, 0.1125, 0.1381]])), tensor
([[0.1352, 0.0824, 0.1163, 0.1516, 0.0848, 0.0933, 0
.1020, 0.1075, 0.1268]])), tensor([[0.1265, 0.0740, 0
.0992, 0.1714, 0.0827, 0.0743, 0.1129, 0.1054, 0.
1537]])), tensor([[0.1084, 0.0738, 0.0870, 0.1678, 0.
0796, 0.0759, 0.1097, 0.1248, 0.1730]])), tensor([[0.
1223, 0.0799, 0.1152, 0.1756, 0.0790, 0.0731, 0.1034
, 0.1150, 0.1365]])), tensor([[0.1507, 0.0719, 0.1076
, 0.1686, 0.0818, 0.0770, 0.0958, 0.1067, 0.1399
]])), tensor([[0.1101, 0.0781, 0.1070, 0.1677, 0.0787
, 0.0810, 0.1202, 0.1106, 0.1466]])), tensor([[0.1182
, 0.0744, 0.1078, 0.1836, 0.0813, 0.0682, 0.1065, 0.
1123, 0.1479]])), tensor([[0.1115, 0.0815, 0.1219, 0.
1836, 0.0787, 0.0701, 0.1074, 0.1067, 0.1387]]),
tensor([[0.1116, 0.0781, 0.1047, 0.1650, 0.0871, 0.
0737, 0.1160, 0.0974, 0.1664]])), tensor([[0.0971, 0.
0809, 0.0993, 0.1857, 0.0836, 0.0797, 0.1070, 0.1146
, 0.1519]])), tensor([[0.1135, 0.0732, 0.1241, 0.1756
, 0.0775, 0.0812, 0.1114, 0.1230, 0.1204]])), tensor
([[0.1030, 0.0813, 0.1068, 0.1618, 0.0835, 0.0766, 0
.1175, 0.1253, 0.1442]])), tensor([[0.1101, 0.0678, 0
.0987, 0.1842, 0.0818, 0.0733, 0.0980, 0.1231, 0.
1630]])), tensor([[0.1252, 0.0805, 0.1133, 0.1791, 0.
0755, 0.0692, 0.0955, 0.1020, 0.1596]])), tensor([[0.
1120, 0.0823, 0.1158, 0.1678, 0.0766, 0.0769, 0.1167
]])

```

```

187 , 0.1084, 0.1435]])), tensor([[0.1075, 0.0750, 0.1071
, 0.1756, 0.0875, 0.0830, 0.1057, 0.1095, 0.1491
]], tensor([[0.1131, 0.0914, 0.1109, 0.1596, 0.0763
, 0.0777, 0.1148, 0.1186, 0.1376]])), tensor([[0.1081
, 0.0849, 0.1144, 0.1742, 0.0823, 0.0762, 0.1040, 0.
1125, 0.1434]])), tensor([[0.1147, 0.0745, 0.1282, 0.
1857, 0.0772, 0.0755, 0.0919, 0.1137, 0.1387]])),
tensor([[0.1008, 0.0895, 0.1268, 0.1620, 0.0880, 0.
0746, 0.1091, 0.1157, 0.1334]])), tensor([[0.1043, 0.
0724, 0.0992, 0.1666, 0.0943, 0.0823, 0.1128, 0.1198
, 0.1483]])), tensor([[0.1091, 0.0713, 0.0964, 0.1656
, 0.0823, 0.0798, 0.1187, 0.1202, 0.1566]])), tensor
([[0.1276, 0.0686, 0.0953, 0.1717, 0.0791, 0.0753, 0
.1254, 0.1036, 0.1534]])), tensor([[0.1158, 0.0759, 0
.1017, 0.1632, 0.0749, 0.0799, 0.1143, 0.1177, 0.
1567]])), tensor([[0.1223, 0.0883, 0.1072, 0.1569, 0.
0721, 0.0740, 0.1233, 0.1168, 0.1391]]])
188 [4677, 1970, 9285, 3349, 3060, 3864, 7448, 65, 4495
, 6853, 4167, 7015, 11129, 3801, 5395, 7570, 9804,
7918, 3068, 9395, 7664, 9996, 2684, 863, 6094, 8459
, 5487, 3187, 8202, 4200, 3568, 9483, 5209, 763,
5723, 1151, 9399, 3322, 4715, 1247, 636, 2686, 4545
, 2723, 6998, 4081, 7879, 796, 7504, 4221, 2545,
6077, 7672, 3681, 1786, 10259, 6033, 8633, 483, 4232
, 2043, 9112, 6833, 1665, 7229, 9243, 11043, 6854,
7573, 5868, 8637, 4527, 999, 5133, 9985, 9044, 739,
9580, 4490, 9853, 10991, 9726, 498, 9045, 3080,
10155, 4191, 2367, 4643, 7417, 8812, 2760, 4786,
8673, 6079, 2280, 5885, 7376, 1715, 6699, 4054,
10047, 2778, 6535, 3048, 3487, 8199, 5442, 7581,
10552, 9355, 6177, 9615, 3013, 1088, 10843, 9764,
1238, 2055, 11234, 8740, 4136, 4697, 5014, 968, 9659
, 8568, 2666, 10307, 5111, 305, 8496, 5569, 4671,
10693, 11205, 5502, 2793, 1616, 922, 8881, 3576,
9495, 3386, 1810, 2266, 3449, 5648, 4295, 1110, 2902
, 7313, 9118, 6058, 2718, 3313, 1968, 8418, 491,
9450, 7691, 4747, 5021, 2884, 3705, 1784, 5902, 2814
, 3083, 8655, 11238, 5291, 3977, 4685, 8872, 10278,
4676, 5398, 4214, 4921, 1317, 5166, 4855, 9731, 9396
, 9693, 10210, 2614, 10822, 5350, 1475, 6873, 1957,
3825, 10912, 8977, 1586, 11147, 7460, 4801, 2325,
]

```

```
188 5906, 3809, 146, 823, 8708, 7157, 10895, 11230, 1493  
, 5505, 11072, 10736, 8556, 3413, 8063, 9453, 3721,  
1730, 7687, 9136, 11064, 10851, 9419, 3624, 7286, 72  
, 3350, 6715, 6283, 4525, 8806, 1174, 8055, 5552,  
138, 4595, 9582, 10235, 6648, 8669, 4767, 1720, 5739  
, 281, 4958, 3699, 1033, 4670, 960, 2060, 4201, 3966  
, 6290, 7454, 9505, 7589, 2483, 1097, 445, 8680,  
8661, 6377, 402, 7938, 2651, 640, 7697, 6168, 7985,  
5360, 3229, 11063, 1301, 2213, 8398, 3508, 7393,  
1386, 2323, 8865, 1787, 11162, 6640, 9350, 4737,  
5358, 1065, 6019, 4588, 910, 6901, 9988, 9815, 8506  
, 10304, 8461, 2688, 2128, 5023, 2969, 8435, 9574,  
2222, 10900, 1445, 1650, 3433, 6516, 8644, 8081,  
7564, 9967, 10156, 2978, 10815, 937, 42, 8460, 3506  
, 10513, 3093, 6702, 1967, 8610, 10437, 299, 3220,  
8894, 9253, 2561, 10486, 10717, 1807, 8400, 10985,  
9260, 8035, 1388, 3762, 4471, 10988, 7322, 10511,  
10575, 3792, 3330, 6121, 8401, 7271, 9230, 1510,  
7167, 9893, 2211, 5526, 2833, 3250, 2183, 9394, 4305  
, 8243, 6868, 5679, 7179, 3859, 726, 11122, 4996,  
1023, 4766, 2402, 5030, 444, 9578, 10619, 8767, 6979  
, 48, 3985, 4591, 8808, 2455, 2524, 3057, 10288,  
4947, 9130, 3246, 4790, 9462, 8716, 6808, 9442, 3002  
, 2024, 8182, 7156, 7083, 7088, 10215, 8575, 3428,  
5632, 994, 9567, 5369, 7806, 7823, 2193, 11158, 9891  
, 10766, 3774, 9632, 6892, 2691, 8128, 8776, 5275,  
6485, 9771, 6217, 10945, 8635, 8045, 10020, 8266,  
501, 8843, 6545, 10574, 927, 4734, 38, 8420, 656,  
3579, 9793, 9341, 718, 3841, 2351, 7511, 814, 8805,  
5880, 3614, 397, 5380, 7699, 10563, 3739, 3183, 928  
, 854, 8587, 9537, 714, 6273, 5410, 8904, 1793, 7803  
, 9595, 3376, 2527, 1837, 1393, 5204, 8194, 3797,  
4419, 8834, 3907, 5730, 5641, 1444, 548, 6160, 9803  
, 3564, 1072, 134, 8583, 4704, 8143, 1797, 2456,  
3577, 7998, 2577, 7122, 9375, 9663, 7261, 991, 4059  
, 11065, 2933]  
189 Downloading data files: 100%|██████████| 1/1 [00:00<  
00:00, 1796.28it/s]  
190 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 112.81it/s]  
191 Generating train split: 0 examples [00:00, ?]
```

```
191 examples/s] Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-821cd5c3a5464c8c/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1...
192 100%|██████████| 1/1 [00:00<00:00, 71.62it/s]
193 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    821cd5c3a5464c8c/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1. Subsequent calls will reuse this data.
194 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
195 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 167.32it/s]
196 Downloading and preparing dataset csv/default to C:/
    Users/admin/.cache/huggingface/datasets/csv/default-
    7c15192278d9b70c/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1...
197 100%|██████████| 1/1 [00:00<00:00, 71.63it/s]
198 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    7c15192278d9b70c/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1. Subsequent calls will reuse this data.
199 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
200 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 111.47it/s]
201 Downloading and preparing dataset csv/default to C:/
    Users/admin/.cache/huggingface/datasets/csv/default-
    696b67812242f0fa/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1...
202 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    696b67812242f0fa/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1. Subsequent calls will reuse this data.
203 100%|██████████| 1/1 [00:00<00:00, 98.45it/s]
```

```
204 Downloading data files: 100%|██████████| 1/1 [00:00
    <?, ?it/s]
205 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-410d0fff79d76eaa/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
206 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 10.01it/s]
207 100%|██████████| 1/1 [00:00<00:00, 62.71it/s]
208 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    410d0fff79d76eaa/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
209 t is : 1
210 addlen is: 500
211 noexp_df.shape[0] last 10741
212 unexplained dataset length is:
213 10741
214 embedding begin
215 trian and val dataset length: 36900
216 MCD_BALD_sampling_20epoch
217 MCD_BALD_sampling_20epoch
218 MCD_BALD_sampling_20epoch
219 MCD_BALD_sampling_20epoch
220 MCD_BALD_sampling_20epoch
221 MCD_BALD_sampling_20epoch
222 MCD_BALD_sampling_20epoch
223 MCD_BALD_sampling_20epoch
224 torch.Size([3690, 30])
225 369.0
226 torch.Size([3690, 30])
227 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
228 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-13d732cca8165853/0.
    0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1)
229 100%|██████████| 1/1 [00:00<00:00, 334.39it/s]
```

```
230 test len 16050
231 Downloading data files: 100%|██████████| 1/1 [00:00<
  00:00, 1001.27it/s]
232 Extracting data files: 100%|██████████| 1/1 [00:00<
  00:00, 104.35it/s]
233 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
34a7e6f6bb837a5c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...
234 100%|██████████| 1/1 [00:00<00:00, 36.20it/s]
235 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
34a7e6f6bb837a5c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.
236 preprocess_samples begin ...
237 uncertainty shape: 1530
238 ./test_embeddings/NEW_bertie_embeddings_textattack/  
bert-base-uncased-MNLI_subset_1.pt
239 classify begin
240 3711
241 0% | 0/30 [00:00<?, ?it/s]
  MCD_BALD_sampling_20epoch
242 MCD_BALD_sampling_20epoch
243 380it [00:09, 112.70it/s] MCD_BALD_sampling_20epoch
244 MCD_BALD_sampling_20epoch
245 MCD_BALD_sampling_20epoch
246 MCD_BALD_sampling_20epoch
247 829it [00:25, 103.10it/s] MCD_BALD_sampling_20epoch
248 MCD_BALD_sampling_20epoch
249 MCD_BALD_sampling_20epoch
250 833it [00:39, 8.19it/s] MCD_BALD_sampling_20epoch
251 1237it [00:40, 151.58it/s] MCD_BALD_sampling_20epoch
252 MCD_BALD_sampling_20epoch
253 MCD_BALD_sampling_20epoch
254 MCD_BALD_sampling_20epoch
255 1645it [00:55, 104.46it/s] MCD_BALD_sampling_20epoch
256 MCD_BALD_sampling_20epoch
257 MCD_BALD_sampling_20epoch
258 1665it [01:09, 9.05it/s] MCD_BALD_sampling_20epoch
```

```
259 2079it [01:10, 125.50it/s]MCD_BALD_sampling_20epoch
260 MCD_BALD_sampling_20epoch
261 MCD_BALD_sampling_20epoch
262 MCD_BALD_sampling_20epoch
263 2440it [01:25, 69.76it/s]MCD_BALD_sampling_20epoch
264 MCD_BALD_sampling_20epoch
265 MCD_BALD_sampling_20epoch
266 2497it [01:39, 12.10it/s]MCD_BALD_sampling_20epoch
267 2910it [01:40, 115.75it/s]MCD_BALD_sampling_20epoch
268 MCD_BALD_sampling_20epoch
269 MCD_BALD_sampling_20epoch
270 MCD_BALD_sampling_20epoch
271 3308it [01:55, 89.00it/s]MCD_BALD_sampling_20epoch
272 MCD_BALD_sampling_20epoch
273 MCD_BALD_sampling_20epoch
274 3329it [02:09, 9.87it/s]MCD_BALD_sampling_20epoch
275 3705it [02:10, 95.44it/s]MCD_BALD_sampling_20epoch
276 MCD_BALD_sampling_20epoch
277 MCD_BALD_sampling_20epoch
278 MCD_BALD_sampling_20epoch
279 4146it [02:24, 84.58it/s]MCD_BALD_sampling_20epoch
280 MCD_BALD_sampling_20epoch
281 MCD_BALD_sampling_20epoch
282 MCD_BALD_sampling_20epoch
283 4557it [02:38, 69.29it/s]MCD_BALD_sampling_20epoch
284 MCD_BALD_sampling_20epoch
285 MCD_BALD_sampling_20epoch
286 MCD_BALD_sampling_20epoch
287 4986it [02:54, 85.24it/s]MCD_BALD_sampling_20epoch
288 MCD_BALD_sampling_20epoch
289 MCD_BALD_sampling_20epoch
290 4993it [03:09, 7.50it/s]MCD_BALD_sampling_20epoch
291 5405it [03:09, 113.32it/s]MCD_BALD_sampling_20epoch
292 MCD_BALD_sampling_20epoch
293 MCD_BALD_sampling_20epoch
294 MCD_BALD_sampling_20epoch
295 5758it [03:24, 57.14it/s]MCD_BALD_sampling_20epoch
296 MCD_BALD_sampling_20epoch
297 MCD_BALD_sampling_20epoch
298 5825it [03:39, 12.98it/s]MCD_BALD_sampling_20epoch
299 6162it [03:40, 60.06it/s]MCD_BALD_sampling_20epoch
```

```
300 MCD_BALD_sampling_20epoch
301 MCD_BALD_sampling_20epoch
302 MCD_BALD_sampling_20epoch
303 6607it [03:53, 80.26it/s]MCD_BALD_sampling_20epoch
304 MCD_BALD_sampling_20epoch
305 MCD_BALD_sampling_20epoch
306 MCD_BALD_sampling_20epoch
307 7033it [04:08, 78.63it/s]MCD_BALD_sampling_20epoch
308 MCD_BALD_sampling_20epoch
309 MCD_BALD_sampling_20epoch
310 MCD_BALD_sampling_20epoch
311 7449it [04:22, 80.03it/s]MCD_BALD_sampling_20epoch
312 MCD_BALD_sampling_20epoch
313 MCD_BALD_sampling_20epoch
314 MCD_BALD_sampling_20epoch
315 7861it [04:37, 77.77it/s]MCD_BALD_sampling_20epoch
316 MCD_BALD_sampling_20epoch
317 MCD_BALD_sampling_20epoch
318 7905it [04:50, 13.08it/s]MCD_BALD_sampling_20epoch
319 8267it [04:51, 93.79it/s]MCD_BALD_sampling_20epoch
320 MCD_BALD_sampling_20epoch
321 MCD_BALD_sampling_20epoch
322 MCD_BALD_sampling_20epoch
323 8660it [05:05, 66.13it/s]MCD_BALD_sampling_20epoch
324 MCD_BALD_sampling_20epoch
325 MCD_BALD_sampling_20epoch
326 8737it [05:18, 16.29it/s]MCD_BALD_sampling_20epoch
327 9142it [05:19, 91.09it/s]MCD_BALD_sampling_20epoch
328 MCD_BALD_sampling_20epoch
329 MCD_BALD_sampling_20epoch
330 MCD_BALD_sampling_20epoch
331 9564it [05:32, 72.55it/s]MCD_BALD_sampling_20epoch
332 MCD_BALD_sampling_20epoch
333 MCD_BALD_sampling_20epoch
334 MCD_BALD_sampling_20epoch
335 9901it [05:46, 49.96it/s]MCD_BALD_sampling_20epoch
336 MCD_BALD_sampling_20epoch
337 MCD_BALD_sampling_20epoch
338 9985it [06:00, 15.68it/s]MCD_BALD_sampling_20epoch
339 10333it [06:00, 73.71it/s]MCD_BALD_sampling_20epoch
340 MCD_BALD_sampling_20epoch
```

```
341 MCD_BALD_sampling_20epoch
342 MCD_BALD_sampling_20epoch
343 10753it [06:14, 78.19it/s]MCD_BALD_sampling_20epoch
344 MCD_BALD_sampling_20epoch
345 MCD_BALD_sampling_20epoch
346 10817it [06:28, 14.07it/s]MCD_BALD_sampling_20epoch
347 11214it [06:29, 100.53it/s]MCD_BALD_sampling_20epoch
348 MCD_BALD_sampling_20epoch
349 MCD_BALD_sampling_20epoch
350 MCD_BALD_sampling_20epoch
351 11615it [06:44, 77.13it/s]MCD_BALD_sampling_20epoch
352 MCD_BALD_sampling_20epoch
353 MCD_BALD_sampling_20epoch
354 MCD_BALD_sampling_20epoch
355 12039it [06:59, 90.18it/s]MCD_BALD_sampling_20epoch
356 MCD_BALD_sampling_20epoch
357 MCD_BALD_sampling_20epoch
358 MCD_BALD_sampling_20epoch
359 12450it [07:13, 78.94it/s]MCD_BALD_sampling_20epoch
360 MCD_BALD_sampling_20epoch
361 MCD_BALD_sampling_20epoch
362 MCD_BALD_sampling_20epoch
363 12480it [07:28, 78.94it/s]MCD_BALD_sampling_20epoch
364 MCD_BALD_sampling_20epoch
365 global t is : 1
366 test epoch results {'accuracy': 0.5705882352941176
, 'f1_weighted': 0.5365317525005062, 'f1_macro': 0.
43950465203359834, 'f1': array([0.83709273, 0.
05263158, 0.5 , 0.18300654, 0.57596372,
367 0.08247423, 0.57236842, 0.59585492, 0.
55614973]), 'precision': array([0.81862745, 1
. , 0.5106383 , 0.48275862, 0.55947137,
368 0.5 , 0.66923077, 0.48866856, 0.
58426966]), 'recall': array([0.85641026, 0.02702703
, 0.48979592, 0.11290323, 0.59345794,
369 0.04494382, 0.5 , 0.76327434, 0.
53061224])}
370 val epoch results {'accuracy': 0.5420054200542005, 'f1_weighted': 0.501798808542509, 'f1_macro': 0.
40464065162890983, 'f1': array([0.83673469, 0
. , 0.44444444, 0.11111111, 0.5045045 ,
```

```

371      0.08695652, 0.54054054, 0.56747405, 0.55
            ]), 'precision': array([0.78846154, 0
            . , 0.66666667, 0.4 , 0.49122807,
372      1. , 0.625 , 0.45303867, 0.
            62857143]), 'recall': array([0.89130435, 0
            . , 0.33333333, 0.06451613, 0.51851852,
373      0.04545455, 0.47619048, 0.75925926, 0.
            48888889])}
374 12480it [07:31, 27.62it/s]
375 mc dropout new embedding 10741
376 [tensor([[0.1884, 0.0747, 0.0732, 0.1872, 0.0824, 0.
0789, 0.0940, 0.1248, 0.0966]]), tensor([[0.1930, 0.
0721, 0.0703, 0.2090, 0.0889, 0.0685, 0.0923, 0.1096
, 0.0963]]), tensor([[0.1871, 0.0820, 0.0855, 0.1556
, 0.0795, 0.0841, 0.0986, 0.1228, 0.1049]]), tensor
([[0.2477, 0.0632, 0.0588, 0.1882, 0.0745, 0.0726, 0
.0863, 0.1008, 0.1079]]), tensor([[0.2294, 0.0764, 0
.0829, 0.1732, 0.0957, 0.0757, 0.0799, 0.1079, 0.
0788]]), tensor([[0.2414, 0.0582, 0.0643, 0.2109, 0.
0714, 0.0702, 0.0805, 0.1030, 0.1001]]), tensor([[0.
1975, 0.0620, 0.0717, 0.1978, 0.0726, 0.0889, 0.0869
, 0.1283, 0.0945]]), tensor([[0.2256, 0.0602, 0.0748
, 0.2101, 0.0897, 0.0710, 0.0742, 0.1011, 0.0932
]]), tensor([[0.2452, 0.0725, 0.0706, 0.1700, 0.0767
, 0.0710, 0.0862, 0.1098, 0.0981]]), tensor([[0.2355
, 0.0770, 0.0754, 0.1831, 0.0609, 0.0748, 0.0874, 0.
1029, 0.1029]]), tensor([[0.2109, 0.0739, 0.0724, 0.
2009, 0.0731, 0.0728, 0.0867, 0.1133, 0.0961]]),
tensor([[0.1936, 0.0613, 0.0678, 0.1989, 0.0732, 0.
0817, 0.0919, 0.1146, 0.1172]]), tensor([[0.2265, 0.
0691, 0.0612, 0.2114, 0.0805, 0.0689, 0.0818, 0.1024
, 0.0982]]), tensor([[0.2309, 0.0693, 0.0746, 0.1718
, 0.0695, 0.0788, 0.0871, 0.1263, 0.0917]]), tensor
([[0.2111, 0.0652, 0.0685, 0.1853, 0.0839, 0.0810, 0
.0899, 0.1206, 0.0945]]), tensor([[0.2184, 0.0682, 0
.0704, 0.2030, 0.0742, 0.0715, 0.0873, 0.1155, 0.
0914]]), tensor([[0.2118, 0.0797, 0.0800, 0.1748, 0.
0820, 0.0792, 0.0826, 0.1209, 0.0889]]), tensor([[0.
2201, 0.0631, 0.0821, 0.1804, 0.0794, 0.0736, 0.0819
, 0.1074, 0.1120]]), tensor([[0.2207, 0.0756, 0.0797
, 0.1604, 0.0789, 0.0695, 0.0899, 0.1110, 0.1143
])

```

```

376 ]]), tensor([[0.2222, 0.0629, 0.0717, 0.2149, 0.0818
    , 0.0655, 0.0794, 0.1021, 0.0994]]), tensor([[0.2196
    , 0.0661, 0.0651, 0.2005, 0.0770, 0.0818, 0.0858, 0.
    1003, 0.1037]]), tensor([[0.2223, 0.0655, 0.0744, 0.
    1983, 0.0767, 0.0714, 0.0847, 0.1108, 0.0959]]),
    tensor([[0.2001, 0.0764, 0.0731, 0.1599, 0.0739, 0.
    0834, 0.1004, 0.1267, 0.1060]]), tensor([[0.2318, 0.
    0627, 0.0664, 0.1873, 0.0695, 0.0755, 0.0872, 0.1007
    , 0.1187]]), tensor([[0.2030, 0.0927, 0.0794, 0.1706
    , 0.0996, 0.0809, 0.0830, 0.1081, 0.0827]]), tensor
    ([[0.1926, 0.0748, 0.0724, 0.1718, 0.0826, 0.0818, 0
    .0944, 0.1151, 0.1145]]), tensor([[0.2107, 0.0647, 0
    .0637, 0.2033, 0.0912, 0.0708, 0.0783, 0.1081, 0.
    1092]]), tensor([[0.2467, 0.0587, 0.0691, 0.2021, 0.
    0778, 0.0625, 0.0760, 0.0973, 0.1099]]), tensor([[0.
    2129, 0.0613, 0.0763, 0.1925, 0.0842, 0.0667, 0.0856
    , 0.0981, 0.1225]]), tensor([[0.1726, 0.0686, 0.0701
    , 0.2001, 0.1043, 0.0710, 0.0896, 0.1051, 0.1185
    ]]), tensor([[0.2148, 0.0654, 0.0661, 0.2070, 0.0886
    , 0.0689, 0.0849, 0.0958, 0.1085]]), tensor([[0.2202
    , 0.0592, 0.0745, 0.1905, 0.0772, 0.0756, 0.0837, 0.
    1214, 0.0979]]), tensor([[0.1967, 0.0746, 0.0694, 0.
    1794, 0.0764, 0.0823, 0.0990, 0.1064, 0.1157]]),
    tensor([[0.2167, 0.0745, 0.0739, 0.1818, 0.0862, 0.
    0738, 0.0895, 0.1124, 0.0911]]), tensor([[0.2127, 0.
    0644, 0.0660, 0.2061, 0.0698, 0.0863, 0.0934, 0.0997
    , 0.1016]]), tensor([[0.2271, 0.0691, 0.0747, 0.1825
    , 0.0774, 0.0695, 0.0847, 0.1250, 0.0900]]), tensor
    ([[0.2045, 0.0751, 0.0829, 0.1873, 0.0765, 0.0742, 0
    .0864, 0.1112, 0.1019]]), tensor([[0.2322, 0.0641, 0
    .0671, 0.1864, 0.0744, 0.0768, 0.0883, 0.1098, 0.
    1009]]), tensor([[0.1891, 0.0773, 0.0953, 0.1992, 0.
    0961, 0.0735, 0.0726, 0.1138, 0.0830]]), tensor([[0.
    2185, 0.0636, 0.0582, 0.1929, 0.0889, 0.0701, 0.0916
    , 0.1067, 0.1096]]), tensor([[0.2350, 0.0662, 0.0689
    , 0.1932, 0.0821, 0.0610, 0.0874, 0.0948, 0.1114
    ]]), tensor([[0.2241, 0.0631, 0.0665, 0.1990, 0.0823
    , 0.0695, 0.0810, 0.1056, 0.1089]]), tensor([[0.2246
    , 0.0732, 0.0912, 0.1778, 0.0923, 0.0738, 0.0740, 0.
    0893, 0.1038]]), tensor([[0.2312, 0.0584, 0.0615, 0.
    1953, 0.0753, 0.0762, 0.0841, 0.1147, 0.1033]]),

```

```

376 tensor([[0.2402, 0.0651, 0.0813, 0.1993, 0.0874, 0.
0650, 0.0723, 0.0936, 0.0958]]), tensor([[0.1886, 0.
0772, 0.0759, 0.2027, 0.0688, 0.0850, 0.0845, 0.1333
, 0.0840]]), tensor([[0.2049, 0.0776, 0.0655, 0.1715
, 0.0901, 0.0736, 0.0883, 0.1168, 0.1117]]), tensor
([[0.1778, 0.0882, 0.0797, 0.1594, 0.0984, 0.0764, 0
.0997, 0.1102, 0.1101]]), tensor([[0.2672, 0.0590, 0
.0604, 0.1937, 0.0720, 0.0704, 0.0811, 0.1012, 0.
0951]]), tensor([[0.2031, 0.0763, 0.0740, 0.2039, 0.
0856, 0.0738, 0.0804, 0.1052, 0.0977]]])
377 [9644, 9189, 2264, 4815, 3614, 9927, 2106, 4061,
8566, 10195, 4410, 4050, 1615, 6865, 8454, 7443,
6701, 1452, 8901, 728, 1945, 6076, 9006, 5770, 10681
, 4793, 3639, 982, 5136, 8615, 6189, 5468, 6750,
3373, 2109, 10021, 2675, 2258, 5348, 6254, 158,
10092, 8269, 993, 8273, 9466, 2761, 2787, 427, 5545
, 8841, 9674, 6609, 8351, 3462, 1732, 4398, 1671,
5767, 3060, 8194, 4099, 4861, 2666, 5282, 7654, 7228
, 9975, 1201, 608, 2712, 360, 2615, 8851, 3731, 5541
, 1499, 10206, 2852, 9044, 2921, 7466, 6294, 6364,
7209, 1358, 714, 8627, 681, 1056, 10542, 9539, 566,
10568, 8984, 4285, 7775, 4374, 3363, 10386, 8208,
2344, 3382, 4860, 1187, 3778, 1204, 2830, 573, 4290
, 1326, 2484, 5471, 5205, 2291, 8514, 10416, 5343,
7226, 6770, 1090, 2667, 9328, 2770, 6954, 4948, 6525
, 5524, 388, 5725, 9299, 731, 6753, 7986, 7653,
10123, 1234, 8967, 2001, 6582, 4156, 7446, 8957,
3013, 8179, 5798, 95, 1928, 8145, 6758, 6354, 1102,
4250, 6426, 586, 8206, 6527, 7650, 10656, 1754, 5151
, 5456, 3518, 3085, 6711, 6536, 734, 4114, 8415,
5246, 8659, 1708, 9121, 3840, 6904, 6684, 6230, 6115
, 2926, 4532, 9756, 10333, 5003, 3520, 6112, 6203,
5933, 8085, 8169, 789, 3618, 7534, 1517, 8999, 4488
, 3043, 320, 9859, 2070, 10200, 13, 4609, 7478, 626
, 10696, 400, 9954, 4709, 5966, 2119, 3070, 1180,
5713, 623, 4602, 3793, 3692, 5487, 9923, 776, 7395,
3930, 10484, 8665, 3890, 8786, 1613, 8626, 7107,
2057, 4912, 10586, 9995, 7987, 3545, 5104, 6132,
3251, 4677, 5993, 3785, 10233, 1705, 4704, 10482,
3104, 4769, 6530, 9376, 5021, 6693, 1086, 9812, 9501
, 7625, 3293, 785, 3088, 895, 4246, 8550, 10722,

```

```
377 3341, 7255, 6164, 1416, 2480, 2507, 1106, 7928, 9984
    , 5089, 8112, 4735, 2146, 812, 2145, 6419, 7007,
    8506, 4680, 4761, 6923, 3876, 5605, 662, 361, 4210,
    5978, 1908, 8107, 10483, 6982, 9582, 8986, 7901, 533
    , 4941, 10215, 10417, 8806, 9669, 5653, 4113, 9408,
    10636, 2946, 5802, 3408, 3657, 8864, 9241, 2324,
    2011, 2931, 5225, 10299, 6752, 7269, 10682, 4647,
    5716, 1941, 8183, 3300, 3504, 8173, 4336, 2123, 6238
    , 9230, 7572, 1481, 9572, 9876, 9237, 746, 5908,
    1595, 2833, 6074, 3507, 8214, 7500, 404, 5105, 1478
    , 1384, 1865, 10147, 1347, 8340, 9698, 5301, 3154,
    877, 2169, 7612, 2792, 1911, 8277, 5422, 8455, 7339
    , 8363, 8068, 10428, 3786, 1711, 8428, 7820, 2838,
    2928, 9456, 5219, 1917, 4836, 4248, 3819, 8301, 2614
    , 3003, 10710, 7363, 3961, 6866, 1477, 2943, 212,
    4881, 1402, 8429, 3834, 321, 8283, 2548, 1952, 7143
    , 6333, 3733, 3405, 4641, 8892, 5111, 2455, 8010,
    6574, 1748, 7085, 1275, 1292, 9516, 1274, 10419,
    9636, 1243, 4226, 2813, 5784, 1743, 9777, 7972, 2504
    , 9034, 7701, 8469, 2079, 10718, 78, 9712, 2476,
    5241, 6745, 5596, 4144, 3433, 2835, 145, 6391, 1600
    , 411, 10212, 3621, 10099, 9035, 8529, 3533, 2089,
    6958, 157, 1063, 1862, 6861, 5855, 763, 3071, 6350,
    3655, 4758, 6714, 854, 2466, 6965, 4671, 10433, 2904
    , 9707, 9419, 10007, 8630, 3329, 9072, 10239, 255,
    6649, 3271, 2503, 2629, 2006, 9073, 10652, 379, 562
    , 3109, 3734, 5088, 2140, 5861, 2594, 8272, 4172,
    8464, 5027, 6661, 1985, 1801, 1747, 7536, 10610,
    7337]

378 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]

379 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 100.20it/s]

380 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-c20ac298e105df7f/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...

381 100%|██████████| 1/1 [00:00<00:00, 75.44it/s]

382 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
```

```
382 c20ac298e105df7f/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
383 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
384 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 124.56it/s]
385 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-0b3458657fa9286b/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
386 100%|██████████| 1/1 [00:00<00:00, 77.12it/s]
387 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-0b3458657fa9286b/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
388 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
389 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-9a76d7971b39a3ba/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
390 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 51.43it/s]
391 100%|██████████| 1/1 [00:00<00:00, 67.29it/s]
392 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-9a76d7971b39a3ba/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
393 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
394 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-2ab78f303f87540d/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
395 Extracting data files: 100%|██████████| 1/1 [00:00<
```

```
395 00:00, 10.71it/s]
396 0% | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-2ab78f303f87540d/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
397 100% | 1/1 [00:00<00:00, 25.33it/s]
398 t is : 2
399 addlen is: 1000
400 noexp_df.shape[0] last 10241
401 unexplained dataset length is:
402 10241
403 embedding begin
404 trian and val dataset length: 45540
405 MCD_BALD_sampling_20epoch
406 MCD_BALD_sampling_20epoch
407 MCD_BALD_sampling_20epoch
408 MCD_BALD_sampling_20epoch
409 MCD_BALD_sampling_20epoch
410 MCD_BALD_sampling_20epoch
411 MCD_BALD_sampling_20epoch
412 MCD_BALD_sampling_20epoch
413 torch.Size([4554, 30])
414 414.0
415 torch.Size([4140, 33])
416 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
417 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-13d732cca8165853/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1)
418 100% | 1/1 [00:00<00:00, 287.71it/s]
419 test len 17655
420 Downloading data files: 100% | 1/1 [00:00
<?, ?it/s]
421 Extracting data files: 100% | 1/1 [00:00<
00:00, 124.32it/s]
422 Downloading and preparing dataset csv/default to C:/_
Users/admin/.cache/huggingface/datasets/csv/default-
```

```
422 bad21d2828ecf325/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
423 100%|██████████| 1/1 [00:00<00:00, 66.88it/s]  
424 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
bad21d2828ecf325/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
425 preprocess_samples begin ...  
426 uncertainty shape: 1530  
427 ./test_embeddings/NEW_bertie_embeddings_textattack/  
bert-base-uncased-MNLI_subset_1.pt  
428 classify begin  
429 4211  
430 0%|          | 0/30 [00:00<?, ?it/s]  
    MCD_BALD_sampling_20epoch  
431 MCD_BALD_sampling_20epoch  
432 422it [00:10, 139.83it/s]MCD_BALD_sampling_20epoch  
433 MCD_BALD_sampling_20epoch  
434 MCD_BALD_sampling_20epoch  
435 MCD_BALD_sampling_20epoch  
436 916it [00:25, 107.85it/s]MCD_BALD_sampling_20epoch  
437 MCD_BALD_sampling_20epoch  
438 MCD_BALD_sampling_20epoch  
439 933it [00:39, 11.32it/s] MCD_BALD_sampling_20epoch  
440 1331it [00:40, 83.25it/s]MCD_BALD_sampling_20epoch  
441 MCD_BALD_sampling_20epoch  
442 MCD_BALD_sampling_20epoch  
443 MCD_BALD_sampling_20epoch  
444 1844it [00:55, 133.85it/s]MCD_BALD_sampling_20epoch  
445 MCD_BALD_sampling_20epoch  
446 MCD_BALD_sampling_20epoch  
447 1864it [01:07, 133.85it/s]MCD_BALD_sampling_20epoch  
448 2325it [01:12, 149.88it/s]MCD_BALD_sampling_20epoch  
449 MCD_BALD_sampling_20epoch  
450 MCD_BALD_sampling_20epoch  
451 MCD_BALD_sampling_20epoch  
452 2779it [01:27, 98.32it/s]MCD_BALD_sampling_20epoch  
453 MCD_BALD_sampling_20epoch  
454 2796it [01:37, 98.32it/s]MCD_BALD_sampling_20epoch
```

```
455 MCD_BALD_sampling_20epoch
456 3235it [01:43, 114.81it/s]MCD_BALD_sampling_20epoch
457 MCD_BALD_sampling_20epoch
458 MCD_BALD_sampling_20epoch
459 3262it [01:58, 114.81it/s]MCD_BALD_sampling_20epoch
460 3689it [01:59, 136.63it/s]MCD_BALD_sampling_20epoch
461 MCD_BALD_sampling_20epoch
462 MCD_BALD_sampling_20epoch
463 MCD_BALD_sampling_20epoch
464 4191it [02:15, 125.73it/s]MCD_BALD_sampling_20epoch
465 MCD_BALD_sampling_20epoch
466 MCD_BALD_sampling_20epoch
467 4194it [02:28, 125.73it/s]MCD_BALD_sampling_20epoch
468 4654it [02:30, 126.68it/s]MCD_BALD_sampling_20epoch
469 MCD_BALD_sampling_20epoch
470 MCD_BALD_sampling_20epoch
471 MCD_BALD_sampling_20epoch
472 5106it [02:46, 97.50it/s]MCD_BALD_sampling_20epoch
473 MCD_BALD_sampling_20epoch
474 MCD_BALD_sampling_20epoch
475 5127it [03:02, 9.55it/s]MCD_BALD_sampling_20epoch
476 5572it [03:02, 113.79it/s]MCD_BALD_sampling_20epoch
477 MCD_BALD_sampling_20epoch
478 MCD_BALD_sampling_20epoch
479 5593it [03:18, 9.68it/s] MCD_BALD_sampling_20epoch
480 6027it [03:19, 116.70it/s]MCD_BALD_sampling_20epoch
481 MCD_BALD_sampling_20epoch
482 MCD_BALD_sampling_20epoch
483 MCD_BALD_sampling_20epoch
484 6483it [03:38, 184.44it/s]MCD_BALD_sampling_20epoch
485 MCD_BALD_sampling_20epoch
486 MCD_BALD_sampling_20epoch
487 MCD_BALD_sampling_20epoch
488 6981it [03:55, 208.34it/s]MCD_BALD_sampling_20epoch
489 MCD_BALD_sampling_20epoch
490 MCD_BALD_sampling_20epoch
491 6991it [04:10, 5.44it/s] MCD_BALD_sampling_20epoch
492 7436it [04:12, 226.09it/s]MCD_BALD_sampling_20epoch
493 MCD_BALD_sampling_20epoch
494 MCD_BALD_sampling_20epoch
495 MCD_BALD_sampling_20epoch
```

```
496 7895it [04:29, 205.34it/s]MCD_BALD_sampling_20epoch
497 MCD_BALD_sampling_20epoch
498 MCD_BALD_sampling_20epoch
499 MCD_BALD_sampling_20epoch
500 8381it [04:45, 128.09it/s]MCD_BALD_sampling_20epoch
501 MCD_BALD_sampling_20epoch
502 8388it [04:58, 128.09it/s]MCD_BALD_sampling_20epoch
503 MCD_BALD_sampling_20epoch
504 8827it [05:05, 103.17it/s]MCD_BALD_sampling_20epoch
505 MCD_BALD_sampling_20epoch
506 MCD_BALD_sampling_20epoch
507 8854it [05:18, 103.17it/s]MCD_BALD_sampling_20epoch
508 9300it [05:21, 118.32it/s]MCD_BALD_sampling_20epoch
509 MCD_BALD_sampling_20epoch
510 MCD_BALD_sampling_20epoch
511 MCD_BALD_sampling_20epoch
512 9747it [05:36, 94.36it/s]MCD_BALD_sampling_20epoch
513 MCD_BALD_sampling_20epoch
514 MCD_BALD_sampling_20epoch
515 9787it [05:52, 11.17it/s]MCD_BALD_sampling_20epoch
516 10241it [05:52, 120.92it/s]MCD_BALD_sampling_20epoch
517 MCD_BALD_sampling_20epoch
518 MCD_BALD_sampling_20epoch
519 10253it [06:09, 9.09it/s] MCD_BALD_sampling_20epoch
520 10678it [06:09, 109.65it/s]MCD_BALD_sampling_20epoch
521 MCD_BALD_sampling_20epoch
522 MCD_BALD_sampling_20epoch
523 MCD_BALD_sampling_20epoch
524 11183it [06:26, 185.50it/s]MCD_BALD_sampling_20epoch
525 MCD_BALD_sampling_20epoch
526 MCD_BALD_sampling_20epoch
527 11185it [06:41, 7.11it/s] MCD_BALD_sampling_20epoch
528 11625it [06:42, 223.77it/s]MCD_BALD_sampling_20epoch
529 MCD_BALD_sampling_20epoch
530 MCD_BALD_sampling_20epoch
531 MCD_BALD_sampling_20epoch
532 12110it [06:59, 218.91it/s]MCD_BALD_sampling_20epoch
533 MCD_BALD_sampling_20epoch
534 MCD_BALD_sampling_20epoch
535 MCD_BALD_sampling_20epoch
536 12559it [07:16, 140.63it/s]MCD_BALD_sampling_20epoch
```

```
537 MCD_BALD_sampling_20epoch
538 MCD_BALD_sampling_20epoch
539 12583it [07:31, 9.53it/s] MCD_BALD_sampling_20epoch
540 13019it [07:33, 177.98it/s] MCD_BALD_sampling_20epoch
541 MCD_BALD_sampling_20epoch
542 MCD_BALD_sampling_20epoch
543 13049it [07:48, 7.55it/s] MCD_BALD_sampling_20epoch
544 13485it [07:49, 216.33it/s] MCD_BALD_sampling_20epoch
545 MCD_BALD_sampling_20epoch
546 MCD_BALD_sampling_20epoch
547 MCD_BALD_sampling_20epoch
548 13968it [08:08, 177.72it/s] MCD_BALD_sampling_20epoch
549 MCD_BALD_sampling_20epoch
550 13980it [08:18, 177.72it/s] MCD_BALD_sampling_20epoch
551 MCD_BALD_sampling_20epoch
552 MCD_BALD_sampling_20epoch
553 MCD_BALD_sampling_20epoch
554 global t is : 2
555 test epoch results {'accuracy': 0.569281045751634, 'f1_weighted': 0.5360514184049205, 'f1_macro': 0.43903018409843236, 'f1': array([0.84536082, 0.18181818, 0.37777778, 0.18666667, 0.583878, 0.06382979, 0.55405405, 0.59744681, 0.56043956]), 'precision': array([0.84974093, 0.57142857, 0.41463415, 0.53846154, 0.54693878, 0.6, 0.67213115, 0.48547718, 0.60714286]), 'recall': array([0.84102564, 0.10810811, 0.34693878, 0.11290323, 0.62616822, 0.03370787, 0.47126437, 0.77654867, 0.52040816])}
556 val epoch results {'accuracy': 0.5628019323671497, 'f1_weighted': 0.5139779263683866, 'f1_macro': 0.3949848053809952, 'f1': array([0.83928571, 0.4, 0.14634146, 0.58730159, 0.44155844, 0.62089552, 0.51948052]), 'precision': array([0.81034483, 0.45454545, 0.5, 0.56923077, 0.56666667, 0.48826291, 0.66666667]), 'recall': array([0.87037037, 0.35714286, 0.08571429, 0.60655738, 0.36170213, 0.85245902, 0.]}
```

```
562 42553191])}
563 13980it [08:30, 27.38it/s]
564 mc dropout new embedding 10241
565 [tensor([[0.1417, 0.0876, 0.0847, 0.1643, 0.0999, 0.
0791, 0.1069, 0.1101, 0.1256]]), tensor([[0.1658, 0.
0859, 0.0853, 0.1536, 0.0918, 0.0773, 0.1082, 0.1230
, 0.1091]]), tensor([[0.1695, 0.0855, 0.0931, 0.1483
, 0.0940, 0.0849, 0.1015, 0.1132, 0.1101]]), tensor
([[0.1624, 0.0859, 0.0864, 0.1616, 0.0916, 0.0779, 0
.0960, 0.1294, 0.1088]]), tensor([[0.1531, 0.0877, 0
.0805, 0.1491, 0.1024, 0.0772, 0.1076, 0.1234, 0.
1189]]), tensor([[0.1580, 0.0750, 0.0825, 0.1684, 0.
0819, 0.0874, 0.1075, 0.1291, 0.1103]]), tensor([[0.
1553, 0.0870, 0.0885, 0.1660, 0.0921, 0.0740, 0.1102
, 0.1211, 0.1059]]), tensor([[0.1528, 0.0695, 0.0919
, 0.1688, 0.0992, 0.0828, 0.1096, 0.1224, 0.1029
]]), tensor([[0.1951, 0.0800, 0.0759, 0.1435, 0.0895
, 0.0781, 0.1122, 0.1148, 0.1109]]), tensor([[0.1297
, 0.0752, 0.0990, 0.1508, 0.1107, 0.0837, 0.1134, 0.
1269, 0.1105]]), tensor([[0.1556, 0.0765, 0.0842, 0.
1564, 0.0940, 0.0825, 0.1078, 0.1341, 0.1089]]),
tensor([[0.1464, 0.0739, 0.0967, 0.1667, 0.0965, 0.
0820, 0.1062, 0.1125, 0.1191]]), tensor([[0.1349, 0.
0931, 0.1000, 0.1510, 0.1103, 0.0819, 0.1058, 0.1132
, 0.1099]]), tensor([[0.1447, 0.0819, 0.0939, 0.1596
, 0.0940, 0.0823, 0.1029, 0.1217, 0.1191]]), tensor
([[0.1689, 0.0855, 0.0821, 0.1765, 0.0935, 0.0787, 0
.0959, 0.1128, 0.1060]]), tensor([[0.1477, 0.0752, 0
.0865, 0.1638, 0.1002, 0.0713, 0.1195, 0.1152, 0.
1206]]), tensor([[0.1524, 0.0762, 0.0815, 0.1589, 0.
0923, 0.0804, 0.1024, 0.1365, 0.1193]]), tensor([[0.
1623, 0.0792, 0.0889, 0.1524, 0.1026, 0.0756, 0.1119
, 0.1190, 0.1080]]), tensor([[0.1235, 0.0878, 0.0940
, 0.1715, 0.1064, 0.0818, 0.1110, 0.1184, 0.1058
]]), tensor([[0.1405, 0.0779, 0.0782, 0.1580, 0.1110
, 0.0790, 0.1128, 0.1343, 0.1084]]), tensor([[0.1659
, 0.0728, 0.0820, 0.1589, 0.0873, 0.0778, 0.1030, 0.
1326, 0.1197]]), tensor([[0.1567, 0.0866, 0.0754, 0.
1710, 0.0950, 0.0800, 0.1004, 0.1232, 0.1117]]),
tensor([[0.1666, 0.0779, 0.0839, 0.1632, 0.0857, 0.
0929, 0.1095, 0.1136, 0.1065]]), tensor([[0.1600, 0.
```

```

565 0904, 0.0745, 0.1583, 0.0924, 0.0751, 0.1061, 0.1310
, 0.1120]], tensor([[0.1546, 0.0755, 0.0990, 0.1613
, 0.1114, 0.0737, 0.0996, 0.1074, 0.1176]]), tensor
([[0.1458, 0.0842, 0.0853, 0.1692, 0.0998, 0.0886, 0
.1094, 0.1149, 0.1028]]), tensor([[0.1427, 0.0887, 0
.0848, 0.1524, 0.0891, 0.0806, 0.1063, 0.1445, 0.
1109]]), tensor([[0.1439, 0.0869, 0.0838, 0.1712, 0.
0980, 0.0806, 0.1023, 0.1163, 0.1170]]), tensor([[0.
1721, 0.0879, 0.0867, 0.1655, 0.0862, 0.0939, 0.0976
, 0.1097, 0.1003]]), tensor([[0.1288, 0.0952, 0.0947
, 0.1610, 0.0943, 0.0836, 0.1103, 0.1184, 0.1138
]]), tensor([[0.1330, 0.0970, 0.0976, 0.1588, 0.0978
, 0.0875, 0.1030, 0.1152, 0.1102]]), tensor([[0.1519
, 0.0881, 0.0896, 0.1645, 0.1028, 0.0803, 0.1006, 0.
1025, 0.1198]]), tensor([[0.1725, 0.0872, 0.0767, 0.
1593, 0.0884, 0.0814, 0.0941, 0.1360, 0.1044]]),
tensor([[0.1480, 0.0762, 0.0895, 0.1630, 0.1040, 0.
0743, 0.1152, 0.1154, 0.1145]]), tensor([[0.1635, 0.
0824, 0.0858, 0.1631, 0.1030, 0.0726, 0.0956, 0.1177
, 0.1163]]), tensor([[0.1412, 0.0865, 0.0767, 0.1671
, 0.1051, 0.0778, 0.1016, 0.1243, 0.1198]]), tensor
([[0.1459, 0.0850, 0.0769, 0.1744, 0.1070, 0.0819, 0
.0910, 0.1102, 0.1277]]), tensor([[0.1496, 0.0834, 0
.0701, 0.1587, 0.1094, 0.0708, 0.1153, 0.1188, 0.
1239]]), tensor([[0.1748, 0.0736, 0.0894, 0.1479, 0.
1057, 0.0736, 0.1173, 0.1155, 0.1023]]), tensor([[0.
1145, 0.0923, 0.0921, 0.1742, 0.1078, 0.0879, 0.1005
, 0.1203, 0.1106]]), tensor([[0.1684, 0.0811, 0.0821
, 0.1578, 0.1059, 0.0762, 0.0941, 0.1138, 0.1206
]]), tensor([[0.1454, 0.0836, 0.0782, 0.1758, 0.0997
, 0.0774, 0.1049, 0.1186, 0.1165]]), tensor([[0.1563
, 0.0862, 0.0777, 0.1551, 0.0882, 0.0809, 0.1089, 0.
1323, 0.1144]]), tensor([[0.1774, 0.0787, 0.0866, 0.
1657, 0.0947, 0.0778, 0.0990, 0.1087, 0.1114]]),
tensor([[0.1551, 0.0807, 0.0907, 0.1612, 0.0880, 0.
0860, 0.1109, 0.1183, 0.1093]]), tensor([[0.1476, 0.
0825, 0.0861, 0.1622, 0.1134, 0.0733, 0.1037, 0.1110
, 0.1203]]), tensor([[0.1605, 0.0902, 0.0868, 0.1612
, 0.0994, 0.0753, 0.0952, 0.1118, 0.1195]]), tensor
([[0.1122, 0.0944, 0.0920, 0.1663, 0.1031, 0.0847, 0
.1025, 0.1312, 0.1136]]), tensor([[0.1427, 0.0794, 0

```

```
565 .1025, 0.1568, 0.1034, 0.0778, 0.1077, 0.1301, 0.  
0996]], tensor([[0.1756, 0.0789, 0.0802, 0.1468, 0.  
0979, 0.0804, 0.1125, 0.1191, 0.1086]]])  
566 [3144, 1545, 5679, 278, 1680, 8442, 9595, 5705, 1684  
, 9822, 3299, 2006, 9466, 2022, 6210, 586, 4046,  
7059, 4495, 310, 7726, 8422, 7226, 5288, 5024, 6259  
, 4012, 2853, 5066, 3263, 1904, 8313, 7952, 6214,  
287, 1997, 195, 2275, 5430, 2657, 9117, 3819, 4792,  
2965, 4521, 6280, 4497, 9484, 6457, 8208, 10228,  
5494, 1468, 6055, 2858, 5956, 3035, 2537, 3673, 9225  
, 3648, 7042, 4740, 9186, 606, 9643, 1914, 9346,  
2512, 7815, 9074, 4814, 2007, 5506, 4723, 8409, 8464  
, 3934, 5428, 9777, 3293, 4887, 2831, 8517, 6629,  
8240, 3718, 1628, 8752, 2669, 5278, 4367, 3826, 3335  
, 4632, 739, 2063, 4117, 1201, 9695, 2997, 6270,  
7751, 7172, 2902, 608, 3092, 4762, 56, 8778, 9171,  
1922, 3389, 4806, 1412, 4448, 5934, 8741, 607, 1747  
, 9301, 9464, 3507, 4586, 4881, 9911, 2391, 1591,  
5900, 2806, 1940, 6291, 1933, 1281, 7909, 5471, 6193  
, 3193, 7181, 7626, 2342, 1142, 2702, 898, 9342,  
5771, 4359, 8470, 2409, 4665, 6745, 1459, 9453, 8067  
, 5722, 1635, 5658, 2151, 4984, 854, 6260, 742, 128  
, 7538, 7415, 1676, 2928, 3813, 2044, 4384, 6497,  
2425, 2003, 7752, 7906, 3693, 221, 3096, 8541, 3078  
, 5897, 4377, 538, 9501, 8281, 9392, 5392, 8454,  
9963, 5925, 2455, 4137, 9008, 4108, 4416, 5124, 7806  
, 8070, 1368, 4289, 836, 5249, 4172, 7836, 508, 3672  
, 5147, 293, 8266, 7335, 6727, 2133, 1046, 6365,  
8325, 6996, 8556, 74, 3793, 8080, 261, 8101, 8936,  
999, 6253, 4403, 7336, 4233, 6983, 724, 1678, 8476,  
1903, 5186, 6984, 5039, 302, 3506, 6953, 8869, 1391  
, 8255, 3816, 2992, 8430, 7821, 3495, 4650, 5587,  
5006, 9352, 1356, 1794, 2480, 8886, 3113, 2509, 4308  
, 10156, 6124, 9989, 1769, 1471, 7032, 4142, 4106,  
5386, 7188, 1069, 5680, 2055, 174, 6677, 1447, 3714  
, 4608, 1495, 3733, 2189, 1806, 960, 8682, 5023,  
5151, 3016, 1228, 7177, 7380, 2937, 5869, 5383, 5385  
, 1110, 3337, 6025, 1084, 4306, 680, 2018, 4459,  
6315, 1409, 3429, 5880, 9390, 7565, 6028, 254, 1872  
, 3955, 7080, 2070, 9754, 3748, 5938, 9530, 1323,  
6422, 5804, 920, 8169, 227, 64, 6012, 1711, 10202,
```

```
566 8689, 6440, 9349, 9964, 4572, 8932, 3161, 731, 3340  
, 5361, 4094, 6239, 4886, 7677, 10151, 4186, 355,  
3407, 8965, 1105, 4733, 6101, 9116, 5737, 4393, 4551  
, 7078, 8773, 950, 9608, 3100, 4105, 2209, 4444,  
7053, 6063, 277, 2243, 441, 6716, 3341, 8344, 8492,  
2092, 1960, 5357, 4447, 1871, 1012, 7428, 7574, 3872  
, 7270, 621, 5612, 4566, 5629, 6165, 2996, 9797,  
8946, 1233, 8092, 1027, 7353, 10021, 3013, 5876,  
8494, 8056, 8178, 9153, 6245, 6405, 1137, 8282, 5012  
, 1515, 8627, 7425, 1025, 1610, 6338, 7986, 7800,  
5721, 9742, 3725, 3404, 4513, 9095, 8487, 7516, 4785  
, 2559, 29, 9842, 1460, 4013, 9209, 5805, 5455, 6460  
, 8163, 2191, 2352, 2565, 633, 6183, 2802, 6009,  
6689, 3655, 6180, 9419, 2062, 3453, 1147, 6125, 8358  
, 6558, 6783, 3239, 3944, 2566, 2729, 7554, 1565,  
6658, 5568, 7046, 4630, 6205, 8421, 3835, 5437, 7103  
, 10076, 4133, 9876, 4398, 8616, 3758, 9566, 5034,  
1643, 941, 3549, 8539, 498, 8906, 9802, 4271, 6108,  
4264, 4830, 1200, 1581, 5594, 9722, 7834, 5176, 489  
, 9298, 1218, 521, 3712, 6481, 39, 8873, 3332, 1821  
, 8962, 4420]  
567 Downloading data files: 100%|██████████| 1/1 [00:00<  
00:00, 1004.38it/s]  
568 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.22it/s]  
569 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-a8553253ce23dc19/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
570 100%|██████████| 1/1 [00:00<00:00, 91.17it/s]  
571 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
a8553253ce23dc19/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
572 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
573 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 125.30it/s]
```

```
574 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-87701867783bea38/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
575 100%|██████████| 1/1 [00:00<00:00, 77.00it/s]  
576 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
87701867783bea38/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
577 Downloading data files: 100%|██████████| 1/1 [00:00<  
00:00, 994.62it/s]  
578 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
2e8a0559899c88d0/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
579 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 124.38it/s]  
580 100%|██████████| 1/1 [00:00<00:00, 83.63it/s]  
581 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
2e8a0559899c88d0/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
582 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
583 Extracting data files: 0%|          | 0/1 [00:00  
<?, ?it/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-4966f86f52556423/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
584 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 8.71it/s]  
585 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv  
downloaded and prepared to C:/Users/admin/.cache/  
huggingface/datasets/csv/default-4966f86f52556423/0.  
0.0/
```

```
585      6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
      3bcc7ec513e1. Subsequent calls will reuse this data.  
586 100%|██████████| 1/1 [00:00<00:00, 52.81it/s]  
587 t is : 3  
588 addlen is: 1500  
589 noexp_df.shape[0] last 9741  
590 unexplained dataset length is:  
591 9741  
592 embedding begin  
593 trian and val dataset length: 56160  
594 MCD_BALD_sampling_20epoch  
595 MCD_BALD_sampling_20epoch  
596 MCD_BALD_sampling_20epoch  
597 MCD_BALD_sampling_20epoch  
598 MCD_BALD_sampling_20epoch  
599 MCD_BALD_sampling_20epoch  
600 MCD_BALD_sampling_20epoch  
601 MCD_BALD_sampling_20epoch  
602 torch.Size([5616, 30])  
603 468.0  
604 torch.Size([4680, 36])  
605 ./embeddings/NEW_bertie_embeddings_textattack/bert-  
base-uncased-MNLI_subset_1.pt  
606 Found cached dataset csv (C:/Users/admin/.cache/  
huggingface/datasets/csv/default-13d732cca8165853/0.  
0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
      3bcc7ec513e1)  
607 100%|██████████| 1/1 [00:00<00:00, 335.60it/s]  
608 test len 19260  
609 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
7613d643b174a1c3/0.0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
      3bcc7ec513e1...  
610 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
611 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 111.69it/s]  
612 100%|██████████| 1/1 [00:00<00:00, 90.66it/s]
```

```
613 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
7613d643b174a1c3/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
614 preprocess_samples begin ...  
615 uncertainty shape: 1530  
616 ./test_embeddings/NEW_bertie_embeddings_textattack/  
bert-base-uncased-MNLI_subset_1.pt  
617 classify begin  
618 4711  
619 0%|          | 0/30 [00:00<?, ?it/s]  
    MCD_BALD_sampling_20epoch  
620 MCD_BALD_sampling_20epoch  
621 500it [00:09, 217.97it/s]MCD_BALD_sampling_20epoch  
622 MCD_BALD_sampling_20epoch  
623 527it [00:19, 217.97it/s]MCD_BALD_sampling_20epoch  
624 MCD_BALD_sampling_20epoch  
625 986it [00:24, 120.98it/s]MCD_BALD_sampling_20epoch  
626 MCD_BALD_sampling_20epoch  
627 MCD_BALD_sampling_20epoch  
628 MCD_BALD_sampling_20epoch  
629 1511it [00:38, 117.21it/s]MCD_BALD_sampling_20epoch  
630 MCD_BALD_sampling_20epoch  
631 MCD_BALD_sampling_20epoch  
632 1582it [00:53, 15.20it/s] MCD_BALD_sampling_20epoch  
633 2054it [00:54, 136.38it/s]MCD_BALD_sampling_20epoch  
634 MCD_BALD_sampling_20epoch  
635 MCD_BALD_sampling_20epoch  
636 MCD_BALD_sampling_20epoch  
637 2593it [01:09, 135.29it/s]MCD_BALD_sampling_20epoch  
638 MCD_BALD_sampling_20epoch  
639 MCD_BALD_sampling_20epoch  
640 MCD_BALD_sampling_20epoch  
641 3136it [01:24, 142.14it/s]MCD_BALD_sampling_20epoch  
642 MCD_BALD_sampling_20epoch  
643 MCD_BALD_sampling_20epoch  
644 MCD_BALD_sampling_20epoch  
645 3676it [01:39, 140.53it/s]MCD_BALD_sampling_20epoch  
646 MCD_BALD_sampling_20epoch  
647 3689it [01:49, 140.53it/s]MCD_BALD_sampling_20epoch
```

```
648 MCD_BALD_sampling_20epoch
649 4209it [01:55, 188.13it/s]MCD_BALD_sampling_20epoch
650 MCD_BALD_sampling_20epoch
651 MCD_BALD_sampling_20epoch
652 4217it [02:10, 8.75it/s] MCD_BALD_sampling_20epoch
653 4726it [02:11, 212.55it/s]MCD_BALD_sampling_20epoch
654 MCD_BALD_sampling_20epoch
655 MCD_BALD_sampling_20epoch
656 MCD_BALD_sampling_20epoch
657 5257it [02:26, 126.47it/s]MCD_BALD_sampling_20epoch
658 MCD_BALD_sampling_20epoch
659 MCD_BALD_sampling_20epoch
660 5271it [02:40, 13.03it/s] MCD_BALD_sampling_20epoch
661 5729it [02:40, 123.37it/s]MCD_BALD_sampling_20epoch
662 MCD_BALD_sampling_20epoch
663 MCD_BALD_sampling_20epoch
664 MCD_BALD_sampling_20epoch
665 6309it [02:56, 151.63it/s]MCD_BALD_sampling_20epoch
666 MCD_BALD_sampling_20epoch
667 MCD_BALD_sampling_20epoch
668 6324it [03:09, 151.63it/s]MCD_BALD_sampling_20epoch
669 6816it [03:12, 159.92it/s]MCD_BALD_sampling_20epoch
670 MCD_BALD_sampling_20epoch
671 MCD_BALD_sampling_20epoch
672 MCD_BALD_sampling_20epoch
673 7362it [03:28, 159.36it/s]MCD_BALD_sampling_20epoch
674 MCD_BALD_sampling_20epoch
675 7378it [03:39, 159.36it/s]MCD_BALD_sampling_20epoch
676 MCD_BALD_sampling_20epoch
677 7892it [03:44, 234.84it/s]MCD_BALD_sampling_20epoch
678 MCD_BALD_sampling_20epoch
679 MCD_BALD_sampling_20epoch
680 7905it [03:59, 234.84it/s]MCD_BALD_sampling_20epoch
681 8428it [04:01, 295.69it/s]MCD_BALD_sampling_20epoch
682 MCD_BALD_sampling_20epoch
683 MCD_BALD_sampling_20epoch
684 MCD_BALD_sampling_20epoch
685 8953it [04:16, 170.70it/s]MCD_BALD_sampling_20epoch
686 MCD_BALD_sampling_20epoch
687 MCD_BALD_sampling_20epoch
688 8960it [04:31, 9.14it/s] MCD_BALD_sampling_20epoch
```

```
689 9457it [04:32, 200.40it/s]MCD_BALD_sampling_20epoch
690 MCD_BALD_sampling_20epoch
691 MCD_BALD_sampling_20epoch
692 MCD_BALD_sampling_20epoch
693 10007it [04:48, 184.31it/s]MCD_BALD_sampling_20epoch
694 MCD_BALD_sampling_20epoch
695 MCD_BALD_sampling_20epoch
696 10014it [05:03, 8.44it/s] MCD_BALD_sampling_20epoch
697 10523it [05:04, 185.93it/s]MCD_BALD_sampling_20epoch
698 MCD_BALD_sampling_20epoch
699 MCD_BALD_sampling_20epoch
700 MCD_BALD_sampling_20epoch
701 11015it [05:19, 130.35it/s]MCD_BALD_sampling_20epoch
702 MCD_BALD_sampling_20epoch
703 11067it [05:29, 130.35it/s]MCD_BALD_sampling_20epoch
704 MCD_BALD_sampling_20epoch
705 11542it [05:34, 200.27it/s]MCD_BALD_sampling_20epoch
706 MCD_BALD_sampling_20epoch
707 MCD_BALD_sampling_20epoch
708 MCD_BALD_sampling_20epoch
709 12114it [05:51, 228.49it/s]MCD_BALD_sampling_20epoch
710 MCD_BALD_sampling_20epoch
711 MCD_BALD_sampling_20epoch
712 MCD_BALD_sampling_20epoch
713 12616it [06:08, 237.65it/s]MCD_BALD_sampling_20epoch
714 MCD_BALD_sampling_20epoch
715 MCD_BALD_sampling_20epoch
716 12649it [06:22, 9.59it/s] MCD_BALD_sampling_20epoch
717 13120it [06:23, 169.20it/s]MCD_BALD_sampling_20epoch
718 MCD_BALD_sampling_20epoch
719 MCD_BALD_sampling_20epoch
720 MCD_BALD_sampling_20epoch
721 13701it [06:38, 200.57it/s]MCD_BALD_sampling_20epoch
722 MCD_BALD_sampling_20epoch
723 13702it [06:49, 200.57it/s]MCD_BALD_sampling_20epoch
724 MCD_BALD_sampling_20epoch
725 14220it [06:55, 218.79it/s]MCD_BALD_sampling_20epoch
726 MCD_BALD_sampling_20epoch
727 MCD_BALD_sampling_20epoch
728 14230it [07:11, 5.65it/s] MCD_BALD_sampling_20epoch
729 14737it [07:12, 185.96it/s]MCD_BALD_sampling_20epoch
```

```
730 MCD_BALD_sampling_20epoch
731 MCD_BALD_sampling_20epoch
732 MCD_BALD_sampling_20epoch
733 15275it [07:28, 164.64it/s]MCD_BALD_sampling_20epoch
734 MCD_BALD_sampling_20epoch
735 MCD_BALD_sampling_20epoch
736 15284it [07:43, 9.10it/s] MCD_BALD_sampling_20epoch
737 15750it [07:44, 178.18it/s]MCD_BALD_sampling_20epoch
738 MCD_BALD_sampling_20epoch
739 MCD_BALD_sampling_20epoch
740 MCD_BALD_sampling_20epoch
741 15810it [07:59, 178.18it/s]MCD_BALD_sampling_20epoch
742 MCD_BALD_sampling_20epoch
743 global t is : 3
744 test epoch results {'accuracy': 0.5666666666666667,
    , 'f1_weighted': 0.5388584778664829, 'f1_macro': 0.
4469219492734704, 'f1': array([0.85347044, 0.
20833333, 0.38709677, 0.18934911, 0.58974359,
745 0.08080808, 0.56271186, 0.58987784, 0.
56090652]), 'precision': array([0.8556701 , 0.
45454545, 0.40909091, 0.35555556, 0.54330709,
746 0.4 , 0.68595041, 0.4870317 , 0.
63057325]), 'recall': array([0.85128205, 0.13513514
, 0.36734694, 0.12903226, 0.64485981,
747 0.04494382, 0.47701149, 0.74778761, 0.
50510204])}
748 val epoch results {'accuracy': 0.5918803418803419, '
f1_weighted': 0.5555544133337358, 'f1_macro': 0.
45406230542112497, 'f1': array([0.84057971, 0.
28571429, 0.28571429, 0.20833333, 0.62745098,
749 0.11764706, 0.53488372, 0.63068182, 0.
55555556]), 'precision': array([0.80555556, 0.
66666667, 0.42857143, 0.55555556, 0.57831325,
750 0.4 , 0.67647059, 0.51388889, 0.
64102564]), 'recall': array([0.87878788, 0.18181818
, 0.21428571, 0.12820513, 0.68571429,
751 0.06896552, 0.44230769, 0.81617647, 0.
49019608])}
752 15810it [08:04, 32.63it/s]
753 mc dropout new embedding 9741
754 [tensor([[0.2095, 0.0803, 0.0904, 0.1422, 0.0963, 0.
```

```

754 0910, 0.0942, 0.1065, 0.0895]], tensor([[0.2302, 0.
0768, 0.0843, 0.1532, 0.1014, 0.0878, 0.0946, 0.0830
, 0.0886]], tensor([[0.2185, 0.0808, 0.0812, 0.1492
, 0.0940, 0.0934, 0.1016, 0.0953, 0.0861]]], tensor
([[0.2059, 0.0760, 0.0805, 0.1466, 0.1118, 0.0934, 0
.1088, 0.0882, 0.0889]], tensor([[0.2281, 0.0746, 0
.0715, 0.1532, 0.0997, 0.0931, 0.0950, 0.0931, 0.
0917]]], tensor([[0.2152, 0.0815, 0.0787, 0.1396, 0.
1083, 0.0913, 0.1133, 0.0857, 0.0864]], tensor([[0.
1870, 0.0835, 0.0807, 0.1511, 0.0957, 0.0915, 0.1201
, 0.0974, 0.0928]]], tensor([[0.1854, 0.0771, 0.0953
, 0.1404, 0.1150, 0.0910, 0.0950, 0.1019, 0.0989
]]], tensor([[0.2409, 0.0787, 0.0831, 0.1552, 0.0931
, 0.0861, 0.0957, 0.0834, 0.0839]], tensor([[0.2058
, 0.0706, 0.0947, 0.1489, 0.1018, 0.0965, 0.0909, 0.
0977, 0.0931]]], tensor([[0.2560, 0.0781, 0.0836, 0.
1473, 0.1005, 0.0806, 0.0942, 0.0785, 0.0809]]),
tensor([[0.2167, 0.0906, 0.0980, 0.1399, 0.1033, 0.
0867, 0.1010, 0.0829, 0.0808]]], tensor([[0.2004, 0.
0823, 0.0812, 0.1582, 0.0979, 0.0947, 0.0943, 0.0971
, 0.0939]]], tensor([[0.2108, 0.0891, 0.0871, 0.1293
, 0.1108, 0.0858, 0.1086, 0.0868, 0.0916]]], tensor
([[0.1868, 0.0766, 0.0868, 0.1420, 0.1116, 0.0983, 0
.1121, 0.0994, 0.0864]]], tensor([[0.1924, 0.0866, 0
.0834, 0.1523, 0.1132, 0.0834, 0.1016, 0.0963, 0.
0908]]], tensor([[0.1931, 0.0712, 0.0909, 0.1429, 0.
1143, 0.0905, 0.0991, 0.0987, 0.0993]]], tensor([[0.
1862, 0.0936, 0.0872, 0.1460, 0.0979, 0.0902, 0.1098
, 0.0978, 0.0914]]], tensor([[0.1967, 0.0798, 0.0861
, 0.1867, 0.0880, 0.0997, 0.0841, 0.0942, 0.0847
]]], tensor([[0.2285, 0.0882, 0.0918, 0.1635, 0.0861
, 0.0829, 0.1003, 0.0813, 0.0774]]], tensor([[0.2218
, 0.0750, 0.0849, 0.1486, 0.1043, 0.0890, 0.0980, 0.
0890, 0.0895]]], tensor([[0.2117, 0.0764, 0.0855, 0.
1673, 0.1021, 0.0888, 0.1001, 0.0847, 0.0835]]),
tensor([[0.1957, 0.0786, 0.0816, 0.1437, 0.1098, 0.
0949, 0.1025, 0.0974, 0.0958]]], tensor([[0.2069, 0.
0748, 0.0804, 0.1581, 0.1002, 0.0921, 0.1037, 0.1009
, 0.0827]]], tensor([[0.2212, 0.0739, 0.0929, 0.1533
, 0.1022, 0.0892, 0.0962, 0.0839, 0.0872]]], tensor
([[0.1666, 0.0916, 0.0792, 0.1312, 0.1173, 0.1058, 0
.0908, 0.0834, 0.0861]]]

```

```

754 .1088, 0.1000, 0.0995]])), tensor([[0.1947, 0.0714, 0
.0913, 0.1413, 0.1051, 0.0893, 0.1065, 0.0987, 0.
1016]]), tensor([[0.2051, 0.0859, 0.0833, 0.1252, 0.
1086, 0.0934, 0.1025, 0.0955, 0.1004]]), tensor([[0.
1866, 0.0859, 0.0960, 0.1759, 0.0932, 0.0851, 0.0932
, 0.0910, 0.0932]])), tensor([[0.1987, 0.0809, 0.0765
, 0.1668, 0.1027, 0.0919, 0.0963, 0.0889, 0.0974
]]), tensor([[0.1994, 0.0834, 0.0787, 0.1538, 0.0987
, 0.0939, 0.1029, 0.0923, 0.0968]])), tensor([[0.2078
, 0.0869, 0.0938, 0.1454, 0.1108, 0.0861, 0.0984, 0.
0926, 0.0781]])), tensor([[0.1962, 0.0689, 0.0831, 0.
1677, 0.0970, 0.0931, 0.1008, 0.0921, 0.1011]]),
tensor([[0.1997, 0.0768, 0.0939, 0.1469, 0.1021, 0.
0835, 0.1014, 0.0956, 0.1002]])), tensor([[0.2224, 0.
0842, 0.0872, 0.1479, 0.1040, 0.0803, 0.1055, 0.0834
, 0.0850]])), tensor([[0.2124, 0.0726, 0.0751, 0.1406
, 0.1024, 0.1007, 0.1082, 0.0958, 0.0923]])), tensor
([[0.2206, 0.0761, 0.0741, 0.1605, 0.0967, 0.0976, 0
.0894, 0.0929, 0.0920]])), tensor([[0.1840, 0.0838, 0
.0880, 0.1484, 0.1085, 0.0897, 0.0979, 0.1084, 0.
0912]])), tensor([[0.2076, 0.0789, 0.0881, 0.1501, 0.
1002, 0.0903, 0.0897, 0.1019, 0.0931]])), tensor([[0.
1883, 0.0800, 0.0792, 0.1665, 0.0873, 0.0957, 0.1095
, 0.1011, 0.0924]])), tensor([[0.1763, 0.0883, 0.0835
, 0.1480, 0.1005, 0.0880, 0.1110, 0.1024, 0.1021
]])), tensor([[0.2248, 0.0745, 0.0829, 0.1315, 0.1093
, 0.0930, 0.1052, 0.0936, 0.0852]])), tensor([[0.2235
, 0.0727, 0.0857, 0.1269, 0.1113, 0.0929, 0.1048, 0.
0886, 0.0936]])), tensor([[0.1963, 0.0726, 0.0748, 0.
1643, 0.1019, 0.0938, 0.1077, 0.0979, 0.0906]])),
tensor([[0.1940, 0.0771, 0.0813, 0.1458, 0.1101, 0.
0949, 0.1019, 0.1054, 0.0896]])), tensor([[0.2068, 0.
0715, 0.0769, 0.1615, 0.1018, 0.0999, 0.0897, 0.0983
, 0.0936]])), tensor([[0.2094, 0.0879, 0.0798, 0.1426
, 0.1080, 0.0887, 0.1052, 0.0900, 0.0883]])), tensor
([[0.1792, 0.0865, 0.0896, 0.1814, 0.0984, 0.0866, 0
.1048, 0.0907, 0.0829]])), tensor([[0.2101, 0.0743, 0
.0743, 0.1718, 0.0917, 0.0924, 0.0964, 0.0905, 0.
0985]])), tensor([[0.2328, 0.0798, 0.0913, 0.1327, 0.
1016, 0.0899, 0.1020, 0.0823, 0.0876]]])
755 [9233, 7125, 4957, 2438, 6776, 8125, 6287, 9045,

```

755 9612, 8509, 7781, 2112, 3714, 2130, 1560, 457, 3481
, 2177, 1559, 7519, 1698, 2129, 4869, 7353, 5869,
235, 1704, 6290, 1630, 5438, 4858, 6238, 6076, 1071
, 5923, 5349, 4318, 2602, 5363, 1088, 9257, 4399,
2018, 1436, 7657, 2499, 1391, 9185, 5014, 26, 2620,
2035, 4814, 62, 8807, 3288, 542, 3908, 7780, 438,
9578, 2072, 1582, 3520, 9608, 922, 1160, 8108, 607,
3392, 6031, 1671, 8084, 2823, 4920, 6419, 944, 5074
, 6069, 1269, 5632, 3882, 200, 2048, 6658, 9268,
1014, 1956, 8847, 8574, 2974, 39, 1178, 9389, 9173,
5146, 4901, 9599, 8446, 441, 4456, 7498, 6641, 327,
5560, 6143, 9003, 1896, 8706, 8506, 1749, 8614, 3611
, 8886, 3918, 1079, 395, 3533, 6788, 1184, 935, 1953
, 6165, 2626, 9533, 3776, 3799, 3434, 3579, 1692,
7331, 6712, 9231, 8568, 1131, 7294, 6933, 9005, 3063
, 6545, 5029, 7576, 5601, 5222, 3848, 9602, 3859,
4931, 2283, 6752, 773, 4435, 4018, 8301, 8735, 7083
, 5782, 2982, 9049, 3106, 7188, 9478, 459, 5358,
1958, 3014, 6408, 4282, 6840, 5661, 6582, 5048, 8180
, 5216, 7018, 9323, 7518, 7512, 7827, 7715, 6480,
9078, 5986, 2103, 5209, 2553, 698, 1231, 2261, 6967
, 3778, 7167, 6190, 1527, 2545, 9718, 4531, 9560,
4285, 446, 7815, 7947, 5944, 9725, 5249, 8732, 3512
, 1931, 9206, 9082, 4317, 5092, 7962, 5658, 4593,
1886, 2833, 5470, 3131, 2562, 1388, 6701, 7469, 3755
, 8479, 3860, 1280, 1129, 9383, 5540, 1587, 2510,
8088, 1603, 847, 1437, 487, 7299, 5376, 1275, 8210,
7991, 7534, 3987, 7509, 8163, 2699, 1810, 4958, 8292
, 5240, 3385, 35, 1223, 6128, 4863, 2265, 3444, 6588
, 2564, 2711, 440, 3380, 7272, 7496, 635, 6437, 819
, 7984, 8906, 6094, 7094, 8613, 8679, 3973, 9424,
1789, 2701, 8805, 3320, 5557, 9274, 9316, 3554, 4077
, 3169, 9565, 5702, 295, 4993, 786, 1015, 4785, 3371
, 3311, 6234, 3218, 474, 5423, 5882, 6259, 2535, 585
, 2124, 9468, 7643, 5382, 930, 5403, 8267, 215, 1474
, 2348, 1871, 6612, 3500, 6915, 1868, 6815, 2819,
7610, 2017, 3680, 1642, 5521, 6435, 6203, 671, 7024
, 2883, 3268, 6846, 9001, 2266, 8570, 6882, 7069,
3354, 6461, 6535, 4035, 2978, 6456, 7192, 8811, 9200
, 8260, 6538, 5290, 4891, 750, 7291, 4101, 7495,
7471, 5575, 4811, 6530, 6105, 1717, 6602, 6651, 9548

755 , 2673, 4532, 7594, 3080, 4197, 4742, 1650, 5112, 7224, 7677, 6237, 8107, 1249, 3673, 3393, 1151, 9, 7429, 2932, 3935, 8634, 6674, 892, 1842, 9642, 3797 , 3816, 3599, 5005, 4660, 8717, 8454, 3721, 5861, 4746, 5616, 318, 5311, 7735, 3880, 7122, 9552, 7603 , 4853, 505, 4291, 5789, 8596, 1735, 1448, 715, 9328 , 2759, 3190, 4867, 5954, 6843, 6576, 2500, 817, 5136, 9026, 4288, 6696, 5968, 9396, 8758, 2492, 8888 , 403, 6198, 5190, 5645, 6429, 8802, 560, 8020, 4092 , 4202, 3167, 5977, 6314, 4442, 7055, 605, 1382, 6304, 6853, 7420, 7831, 2892, 6210, 6469, 6448, 7822 , 8059, 2665, 3278, 7826, 9423, 4155, 2984, 6595, 5126, 4982, 363, 5539, 6088, 6014, 2796, 8718, 586, 5528, 2442, 8147, 277, 6920, 1865, 7286, 7123, 7200 , 6897, 5556, 1508, 7577, 4430, 4360, 8453, 2205, 6550, 4917, 2364, 1751, 5159, 6205, 498, 6147]

756 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-4704eceb048be561/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...

757 Downloading data files: 100%|██████████| 1/1 [00:00<?, ?it/s]

758 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 144.60it/s]

759 100%|██████████| 1/1 [00:00<00:00, 97.56it/s]

760 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-4704eceb048be561/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.

761 Downloading data files: 100%|██████████| 1/1 [00:00<?, ?it/s]

762 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-89e31914ac896e50/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...

763 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 134.23it/s]

764 100%|██████████| 1/1 [00:00<00:00, 91.20it/s]

```
765 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
89e31914ac896e50/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
766 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
767 Downloading and preparing dataset csv/default to C:/
Users/admin/.cache/huggingface/datasets/csv/default-
3fd6a687c1307310/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
768 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 125.53it/s]
769 100%|██████████| 1/1 [00:00<00:00, 90.53it/s]
770 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
3fd6a687c1307310/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
771 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
772 Extracting data files: 0%|          | 0/1 [00:00
<, ?it/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-6dc627584a24922a/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
773 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 11.73it/s]
774 0%|          | 0/1 [00:00<, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-6dc627584a24922a/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
775 100%|██████████| 1/1 [00:00<00:00, 40.14it/s]
776 t is : 4
777 addlen is: 2000
778 noexp_df.shape[0] last 9241
779 unexplained dataset length is:
```

```
780 9241
781 embedding begin
782 trian and val dataset length: 66690
783 MCD_BALD_sampling_20epoch
784 MCD_BALD_sampling_20epoch
785 MCD_BALD_sampling_20epoch
786 MCD_BALD_sampling_20epoch
787 MCD_BALD_sampling_20epoch
788 MCD_BALD_sampling_20epoch
789 MCD_BALD_sampling_20epoch
790 MCD_BALD_sampling_20epoch
791 torch.Size([6669, 30])
792 513.0
793 torch.Size([5130, 39])
794 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
795 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-13d732cca8165853/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1)
796 100%|██████████| 1/1 [00:00<00:00, 25.73it/s]
797 test len 20865
798 Downloading and preparing dataset csv/default to C:/
Users/admin/.cache/huggingface/datasets/csv/default-
aac0fc19db183666/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
799 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
800 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 125.55it/s]
801 100%|██████████| 1/1 [00:00<00:00, 61.80it/s]
802 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
aac0fc19db183666/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
803 preprocess_samples begin ...
804 uncertainty shape: 1530
805 ./test_embeddings/NEW_bertie_embeddings_textattack/
```

```
805 bert-base-uncased-MNLI_subset_1.pt
806 classify begin
807 5211
808    0% | 0/30 [00:00<?, ?it/s]
     MCD_BALD_sampling_20epoch
809 MCD_BALD_sampling_20epoch
810 557it [00:15, 165.79it/s] MCD_BALD_sampling_20epoch
811 MCD_BALD_sampling_20epoch
812 MCD_BALD_sampling_20epoch
813 MCD_BALD_sampling_20epoch
814 1104it [00:29, 142.94it/s] MCD_BALD_sampling_20epoch
815 MCD_BALD_sampling_20epoch
816 MCD_BALD_sampling_20epoch
817 1157it [00:42, 13.96it/s] MCD_BALD_sampling_20epoch
818 1730it [00:43, 229.24it/s] MCD_BALD_sampling_20epoch
819 MCD_BALD_sampling_20epoch
820 MCD_BALD_sampling_20epoch
821 MCD_BALD_sampling_20epoch
822 2312it [00:58, 186.02it/s] MCD_BALD_sampling_20epoch
823 MCD_BALD_sampling_20epoch
824 MCD_BALD_sampling_20epoch
825 2313it [01:12, 10.49it/s] MCD_BALD_sampling_20epoch
826 2841it [01:12, 181.87it/s] MCD_BALD_sampling_20epoch
827 MCD_BALD_sampling_20epoch
828 MCD_BALD_sampling_20epoch
829 MCD_BALD_sampling_20epoch
830 3441it [01:27, 187.61it/s] MCD_BALD_sampling_20epoch
831 MCD_BALD_sampling_20epoch
832 MCD_BALD_sampling_20epoch
833 3469it [01:41, 12.44it/s] MCD_BALD_sampling_20epoch
834 3995it [01:42, 183.60it/s] MCD_BALD_sampling_20epoch
835 MCD_BALD_sampling_20epoch
836 MCD_BALD_sampling_20epoch
837 MCD_BALD_sampling_20epoch
838 4549it [01:56, 133.98it/s] MCD_BALD_sampling_20epoch
839 MCD_BALD_sampling_20epoch
840 MCD_BALD_sampling_20epoch
841 MCD_BALD_sampling_20epoch
842 5124it [02:10, 135.17it/s] MCD_BALD_sampling_20epoch
843 MCD_BALD_sampling_20epoch
844 MCD_BALD_sampling_20epoch
```

```
845 5202it [02:21, 135.17it/s]MCD_BALD_sampling_20epoch
846 5740it [02:25, 176.59it/s]MCD_BALD_sampling_20epoch
847 MCD_BALD_sampling_20epoch
848 MCD_BALD_sampling_20epoch
849 MCD_BALD_sampling_20epoch
850 6323it [02:40, 178.54it/s]MCD_BALD_sampling_20epoch
851 MCD_BALD_sampling_20epoch
852 MCD_BALD_sampling_20epoch
853 6359it [02:53, 12.69it/s] MCD_BALD_sampling_20epoch
854 6885it [02:54, 188.86it/s]MCD_BALD_sampling_20epoch
855 MCD_BALD_sampling_20epoch
856 MCD_BALD_sampling_20epoch
857 MCD_BALD_sampling_20epoch
858 7513it [03:09, 216.59it/s]MCD_BALD_sampling_20epoch
859 MCD_BALD_sampling_20epoch
860 MCD_BALD_sampling_20epoch
861 7515it [03:23, 9.86it/s] MCD_BALD_sampling_20epoch
862 8072it [03:24, 232.39it/s]MCD_BALD_sampling_20epoch
863 MCD_BALD_sampling_20epoch
864 MCD_BALD_sampling_20epoch
865 8093it [03:42, 7.96it/s] MCD_BALD_sampling_20epoch
866 8627it [03:43, 186.82it/s]MCD_BALD_sampling_20epoch
867 MCD_BALD_sampling_20epoch
868 MCD_BALD_sampling_20epoch
869 MCD_BALD_sampling_20epoch
870 9188it [03:58, 130.11it/s]MCD_BALD_sampling_20epoch
871 MCD_BALD_sampling_20epoch
872 MCD_BALD_sampling_20epoch
873 9249it [04:11, 17.03it/s] MCD_BALD_sampling_20epoch
874 9760it [04:12, 164.28it/s]MCD_BALD_sampling_20epoch
875 MCD_BALD_sampling_20epoch
876 MCD_BALD_sampling_20epoch
877 MCD_BALD_sampling_20epoch
878 10400it [04:27, 323.47it/s]MCD_BALD_sampling_20epoch
879 MCD_BALD_sampling_20epoch
880 MCD_BALD_sampling_20epoch
881 MCD_BALD_sampling_20epoch
882 10928it [04:42, 190.14it/s]MCD_BALD_sampling_20epoch
883 MCD_BALD_sampling_20epoch
884 MCD_BALD_sampling_20epoch
885 MCD_BALD_sampling_20epoch
```

```
886 11540it [04:57, 196.73it/s]MCD_BALD_sampling_20epoch
887 MCD_BALD_sampling_20epoch
888 MCD_BALD_sampling_20epoch
889 MCD_BALD_sampling_20epoch
890 12133it [05:11, 186.98it/s]MCD_BALD_sampling_20epoch
891 MCD_BALD_sampling_20epoch
892 MCD_BALD_sampling_20epoch
893 MCD_BALD_sampling_20epoch
894 12692it [05:26, 177.94it/s]MCD_BALD_sampling_20epoch
895 MCD_BALD_sampling_20epoch
896 MCD_BALD_sampling_20epoch
897 MCD_BALD_sampling_20epoch
898 13285it [05:42, 207.71it/s]MCD_BALD_sampling_20epoch
899 MCD_BALD_sampling_20epoch
900 MCD_BALD_sampling_20epoch
901 MCD_BALD_sampling_20epoch
902 13814it [05:56, 130.24it/s]MCD_BALD_sampling_20epoch
903 MCD_BALD_sampling_20epoch
904 MCD_BALD_sampling_20epoch
905 MCD_BALD_sampling_20epoch
906 14388it [06:10, 136.12it/s]MCD_BALD_sampling_20epoch
907 MCD_BALD_sampling_20epoch
908 MCD_BALD_sampling_20epoch
909 14450it [06:21, 136.12it/s]MCD_BALD_sampling_20epoch
910 15002it [06:24, 186.32it/s]MCD_BALD_sampling_20epoch
911 MCD_BALD_sampling_20epoch
912 MCD_BALD_sampling_20epoch
913 MCD_BALD_sampling_20epoch
914 15543it [06:39, 142.56it/s]MCD_BALD_sampling_20epoch
915 MCD_BALD_sampling_20epoch
916 MCD_BALD_sampling_20epoch
917 15607it [06:53, 14.92it/s] MCD_BALD_sampling_20epoch
918 16183it [06:54, 227.77it/s]MCD_BALD_sampling_20epoch
919 MCD_BALD_sampling_20epoch
920 MCD_BALD_sampling_20epoch
921 MCD_BALD_sampling_20epoch
922 16715it [07:08, 146.85it/s]MCD_BALD_sampling_20epoch
923 MCD_BALD_sampling_20epoch
924 MCD_BALD_sampling_20epoch
925 16763it [07:22, 13.57it/s] MCD_BALD_sampling_20epoch
926 17309it [07:23, 248.51it/s]MCD_BALD_sampling_20epoch
```

```

927 MCD_BALD_sampling_20epoch
928 MCD_BALD_sampling_20epoch
929 MCD_BALD_sampling_20epoch
930 MCD_BALD_sampling_20epoch
931 MCD_BALD_sampling_20epoch
932 17340it [07:41, 248.51it/s]global t is : 4
933 test epoch results {'accuracy': 0.5882352941176471
, 'f1_weighted': 0.5563591120660409, 'f1_macro': 0.
46783928031685096, 'f1': array([0.83790524, 0.
17391304, 0.51485149, 0.1986755 , 0.63318777,
934 0.06060606, 0.63354037, 0.5994695 , 0.
55840456]), 'precision': array([0.81553398, 0.
44444444, 0.5 , 0.55555556, 0.5942623 ,
935 0.3 , 0.68918919, 0.49926362, 0.
63225806]), 'recall': array([0.86153846, 0.10810811
, 0.53061224, 0.12096774, 0.67757009,
936 0.03370787, 0.5862069 , 0.75 , 0.5
])}

937 val epoch results {'accuracy': 0.5925925925925926, 'f1_weighted': 0.5530871848307436, 'f1_macro': 0.
4328773117416639, 'f1': array([0.89142857, 0.
13333333, 0.26086957, 0.18867925, 0.57342657,
938 0.17142857, 0.63636364, 0.62176166, 0.
41860465]), 'precision': array([0.83870968, 0.
33333333, 0.42857143, 0.5 , 0.60294118,
939 0.6 , 0.64814815, 0.5 , 0.
54545455]), 'recall': array([0.95121951, 0.08333333
, 0.1875 , 0.11627907, 0.54666667,
940 0.1 , 0.625 , 0.82191781, 0.
33962264])}

941 mc dropout new embedding 9241
942 17340it [07:42, 37.52it/s]
943 [tensor([[0.1676, 0.0767, 0.0755, 0.1579, 0.0735, 0.
1190, 0.1031, 0.1023, 0.1244]]), tensor([[0.1396, 0.
0972, 0.0858, 0.1492, 0.0873, 0.1100, 0.1029, 0.0971
, 0.1308]]), tensor([[0.1423, 0.0779, 0.0733, 0.1669
, 0.0721, 0.1133, 0.1221, 0.1031, 0.1290]]), tensor
([[0.1451, 0.0893, 0.0794, 0.1717, 0.0831, 0.1030, 0
.1041, 0.0955, 0.1287]]), tensor([[0.1264, 0.0895, 0
.0864, 0.1352, 0.0775, 0.1215, 0.1205, 0.0950, 0.
1479]]), tensor([[0.1481, 0.0835, 0.0819, 0.1479, 0.

```

```

943 0796, 0.1200, 0.1039, 0.0974, 0.1377]])), tensor([[0.
1595, 0.0806, 0.0732, 0.1702, 0.0758, 0.1093, 0.1095
, 0.0967, 0.1252]])), tensor([[0.1555, 0.0816, 0.0776
, 0.1642, 0.0757, 0.1223, 0.1025, 0.0979, 0.1227
]])), tensor([[0.1470, 0.0853, 0.0832, 0.1514, 0.0880
, 0.1070, 0.1169, 0.0924, 0.1289]])), tensor([[0.1470
, 0.0812, 0.0766, 0.1736, 0.0667, 0.1188, 0.1107, 0.
1039, 0.1217]])), tensor([[0.1794, 0.0834, 0.0775, 0.
1616, 0.0709, 0.1044, 0.1012, 0.1014, 0.1202]])),
tensor([[0.1542, 0.0840, 0.0798, 0.1617, 0.0848, 0.
1126, 0.1017, 0.1070, 0.1142]])), tensor([[0.1563, 0.
0911, 0.0856, 0.1567, 0.0875, 0.1053, 0.1025, 0.0924
, 0.1224]])), tensor([[0.1452, 0.0894, 0.0888, 0.1665
, 0.0808, 0.1054, 0.1054, 0.0996, 0.1188]])), tensor
([[0.1547, 0.0818, 0.0730, 0.1671, 0.0701, 0.1081, 0
.1176, 0.0945, 0.1332]])), tensor([[0.1475, 0.0874, 0
.0875, 0.1573, 0.0836, 0.1052, 0.1050, 0.0989, 0.
1276]])), tensor([[0.1509, 0.0871, 0.0844, 0.1565, 0.
0755, 0.1189, 0.1024, 0.0965, 0.1278]])), tensor([[0.
1775, 0.0814, 0.0764, 0.1510, 0.0761, 0.1136, 0.0984
, 0.0989, 0.1266]])), tensor([[0.1433, 0.0872, 0.0860
, 0.1602, 0.0811, 0.1167, 0.1134, 0.1028, 0.1094
]])), tensor([[0.1565, 0.0883, 0.0890, 0.1596, 0.0808
, 0.1073, 0.0982, 0.1030, 0.1174]])), tensor([[0.1507
, 0.0958, 0.0809, 0.1654, 0.0747, 0.1148, 0.1188, 0.
0871, 0.1119]])), tensor([[0.1422, 0.0839, 0.0859, 0.
1615, 0.0853, 0.1077, 0.1032, 0.1045, 0.1258]])),
tensor([[0.1456, 0.0805, 0.0778, 0.1573, 0.0800, 0.
1156, 0.1142, 0.0959, 0.1331]])), tensor([[0.1510, 0.
0890, 0.0803, 0.1607, 0.0685, 0.1101, 0.1284, 0.0892
, 0.1228]])), tensor([[0.1607, 0.0754, 0.0793, 0.1640
, 0.0769, 0.1223, 0.0905, 0.1053, 0.1255]])), tensor
([[0.1288, 0.0924, 0.0915, 0.1468, 0.0909, 0.1090, 0
.1154, 0.0908, 0.1345]])), tensor([[0.1669, 0.0766, 0
.0711, 0.1688, 0.0697, 0.1145, 0.1005, 0.1028, 0.
1292]])), tensor([[0.1477, 0.0758, 0.0714, 0.1621, 0.
0773, 0.1141, 0.1073, 0.1070, 0.1372]])), tensor([[0.
1618, 0.0859, 0.0888, 0.1527, 0.0804, 0.1097, 0.1026
, 0.1006, 0.1176]])), tensor([[0.1577, 0.0809, 0.0728
, 0.1660, 0.0807, 0.1093, 0.1092, 0.1053, 0.1182
]])), tensor([[0.1324, 0.0887, 0.0865, 0.1648, 0.0767
]])

```

```

943 , 0.1187, 0.1040, 0.0973, 0.1309]])), tensor([[0.1578
, 0.0801, 0.0750, 0.1683, 0.0747, 0.1141, 0.1084, 0.
0963, 0.1252]]), tensor([[0.1277, 0.0875, 0.0803, 0.
1632, 0.0757, 0.1220, 0.1325, 0.0889, 0.1221]]),
tensor([[0.1505, 0.0799, 0.0776, 0.1678, 0.0691, 0.
1200, 0.1053, 0.1052, 0.1246]]), tensor([[0.1690, 0.
0762, 0.0704, 0.1687, 0.0624, 0.1177, 0.1154, 0.1007
, 0.1195]]), tensor([[0.1486, 0.0881, 0.0821, 0.1706
, 0.0796, 0.1037, 0.0980, 0.1004, 0.1288]]), tensor
([[0.1777, 0.0771, 0.0742, 0.1644, 0.0679, 0.1169, 0
.1003, 0.1053, 0.1163]]), tensor([[0.1768, 0.0807, 0
.0678, 0.1590, 0.0706, 0.1097, 0.1107, 0.1016, 0.
1232]]), tensor([[0.1593, 0.0808, 0.0806, 0.1554, 0.
0833, 0.1049, 0.1104, 0.1005, 0.1249]]), tensor([[0.
1453, 0.0935, 0.0836, 0.1543, 0.0812, 0.1054, 0.1144
, 0.0986, 0.1238]]), tensor([[0.1607, 0.0776, 0.0737
, 0.1681, 0.0773, 0.1090, 0.0974, 0.1056, 0.1306
]]), tensor([[0.1559, 0.0797, 0.0716, 0.1627, 0.0703
, 0.1108, 0.1153, 0.0956, 0.1381]]), tensor([[0.1588
, 0.0830, 0.0891, 0.1443, 0.0845, 0.1221, 0.0947, 0.
0964, 0.1270]]), tensor([[0.1520, 0.0832, 0.0833, 0.
1660, 0.0733, 0.1174, 0.1075, 0.0938, 0.1236]]),
tensor([[0.1394, 0.0908, 0.0844, 0.1589, 0.0828, 0.
1076, 0.0958, 0.1051, 0.1352]]), tensor([[0.1273, 0.
0871, 0.0955, 0.1540, 0.0780, 0.1253, 0.1076, 0.0987
, 0.1266]]), tensor([[0.1313, 0.1004, 0.0935, 0.1490
, 0.0857, 0.1088, 0.1204, 0.0841, 0.1268]]), tensor
([[0.1355, 0.0877, 0.0857, 0.1638, 0.0861, 0.1046, 0
.0994, 0.1033, 0.1339]]), tensor([[0.1545, 0.0815, 0
.0736, 0.1672, 0.0773, 0.1137, 0.1186, 0.0949, 0.
1186]]), tensor([[0.1691, 0.0908, 0.0874, 0.1457, 0.
0908, 0.1015, 0.0959, 0.0972, 0.1217]]])
944 [1766, 6477, 1481, 1707, 7509, 6694, 3260, 6846, 812
, 9118, 5738, 6715, 7945, 760, 5939, 1458, 795, 3561
, 8206, 6643, 3614, 1954, 4556, 2969, 6023, 5985,
1726, 2630, 8670, 2334, 7727, 9181, 5421, 7391, 4384
, 5234, 3626, 4877, 777, 4119, 2757, 5042, 4024,
3152, 5306, 7840, 8076, 918, 3669, 4545, 7226, 5851
, 19, 9000, 2340, 3574, 7316, 2235, 2753, 9177, 3822
, 3116, 3684, 3222, 5101, 3182, 6677, 7461, 8365,
4408, 4608, 7939, 8858, 876, 1634, 7081, 1749, 9093

```

944 , 6075, 4136, 7475, 2855, 2199, 1971, 6873, 611, 9141, 8672, 1212, 5737, 8570, 8496, 8311, 5964, 8174 , 4383, 1716, 3571, 1310, 3177, 7740, 7558, 3131, 8907, 7305, 7496, 4230, 7541, 343, 6760, 2637, 5116 , 3686, 8627, 7534, 5106, 2294, 2803, 8545, 2511, 5708, 6428, 1380, 2267, 204, 3372, 260, 2240, 6134, 1485, 7238, 2927, 5800, 6249, 6582, 3327, 8408, 8691 , 9203, 7383, 8719, 1417, 4138, 1720, 2077, 9143, 7459, 8014, 3996, 2410, 5729, 8676, 6156, 1126, 8155 , 3643, 5060, 4203, 6487, 4501, 6883, 5134, 3145, 653, 4118, 2431, 3405, 2755, 8400, 932, 7297, 3497, 5088, 6951, 4691, 1895, 5472, 372, 6718, 3217, 2926 , 2063, 6513, 3734, 4475, 7730, 1161, 7624, 5700, 8506, 3909, 3706, 4824, 5848, 8047, 6372, 7758, 3399 , 6579, 6336, 7544, 1428, 7356, 1735, 4307, 4148, 5419, 2512, 8104, 2618, 2338, 7716, 3227, 5143, 8696 , 2745, 1026, 1061, 492, 7796, 2695, 7991, 2155, 716 , 5352, 3604, 5864, 4892, 976, 6410, 4015, 1070, 2678, 8374, 1862, 6819, 7931, 7328, 8695, 2167, 6465 , 7338, 1973, 9226, 7063, 5307, 1743, 6501, 3330, 8708, 2227, 7478, 865, 2958, 5123, 2343, 1151, 5891 , 7898, 7266, 5212, 681, 4781, 4563, 4473, 8756, 4034, 4043, 6555, 887, 1298, 3465, 315, 5606, 8973, 8297, 8282, 2781, 2255, 2439, 2679, 4178, 6049, 3545 , 1748, 2369, 5665, 6489, 1460, 3199, 1879, 815, 5242, 3914, 884, 72, 6662, 1235, 8274, 4964, 7199, 314, 38, 6854, 5211, 6647, 5553, 4651, 2879, 9128, 1574, 25, 1168, 8555, 5400, 3425, 6580, 8799, 2517, 2530, 8576, 2688, 4820, 1752, 1211, 6263, 2496, 1549 , 2799, 4348, 6927, 5013, 8818, 4378, 9065, 9238, 57 , 2849, 9179, 1531, 2664, 8091, 2326, 678, 8257, 5446, 1125, 7302, 7101, 3014, 3201, 2169, 6875, 8183 , 3855, 2748, 8999, 6259, 8673, 7221, 1371, 2395, 3733, 5678, 1280, 1262, 5655, 1249, 6171, 6135, 2846 , 3666, 9033, 2204, 6315, 1867, 8500, 7403, 9122, 1377, 4802, 200, 1845, 116, 8515, 4438, 2598, 1840, 8033, 6849, 9117, 7572, 8648, 2779, 6053, 4027, 4782 , 6218, 6877, 5425, 4576, 2708, 4436, 448, 5151, 5435, 4912, 3005, 4042, 1424, 4739, 5477, 3721, 7686 , 2451, 248, 2712, 224, 2057, 3543, 2100, 6008, 227 , 3448, 332, 3937, 5260, 5821, 8854, 1795, 4698,

```
944 1404, 9136, 3902, 2671, 2423, 9204, 2099, 6744, 1524  
, 4089, 1000, 7492, 7557, 5514, 4082, 766, 7661,  
6870, 7565, 2039, 1020, 190, 4455, 4664, 103, 1159,  
7960, 3780, 8709, 1129, 6533, 6884, 7582, 6291, 2767  
, 4994, 6752, 1415, 7005, 1722, 4846, 2774, 8303,  
3606, 2412, 6278, 2048, 13, 142, 7635, 544, 1849,  
5671, 4682, 6243, 6225, 9082, 7103, 657, 7040, 7070  
, 8112, 7102, 6596, 2985, 1114, 7783, 4761, 8523]  
945 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
946 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 125.59it/s]  
947 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-f5229341f2bead01/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
948 100%|██████████| 1/1 [00:00<00:00, 103.53it/s]  
949 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
f5229341f2bead01/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
950 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
951 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 134.58it/s]  
952 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
e4072a9f0e2bfccf0/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
953 100%|██████████| 1/1 [00:00<00:00, 87.17it/s]  
954 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
e4072a9f0e2bfccf0/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
955 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]
```

```
956 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 123.13it/s]
957 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-e9a5b42cbdbe389e/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
958 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-e9a5b42cbdbe389e/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
959 100%|██████████| 1/1 [00:00<00:00, 100.34it/s]
960 Downloading data files: 100%|██████████| 1/1 [00:00<?, ?it/s]
961 Extracting data files: 0%|          | 0/1 [00:00<?, ?it/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-8676ea65b0c2888d/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
962 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 12.15it/s]
963 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-8676ea65b0c2888d/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
964 100%|██████████| 1/1 [00:00<00:00, 50.29it/s]
965 t is : 5
966 addlen is: 2500
967 noexp_df.shape[0] last 8741
968 unexplained dataset length is:
969 8741
970 embedding begin
971 trian and val dataset length: 79380
972 MCD_BALD_sampling_20epoch
973 MCD_BALD_sampling_20epoch
974 MCD_BALD_sampling_20epoch
975 MCD_BALD_sampling_20epoch
```

```
976 MCD_BALD_sampling_20epoch
977 MCD_BALD_sampling_20epoch
978 MCD_BALD_sampling_20epoch
979 MCD_BALD_sampling_20epoch
980 torch.Size([7938, 30])
981 567.0
982 torch.Size([5670, 42])
983 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
984 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-13d732cca8165853/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1)
985 100%|██████████| 1/1 [00:00<00:00, 84.84it/s]
986 test len 22470
987 Downloading data files: 100%|██████████| 1/1 [00:00
<00:00, 1001.51it/s]
988 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 125.48it/s]
989 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-621d5682a4b9ef00/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
990 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-621d5682a4b9ef00/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
991 100%|██████████| 1/1 [00:00<00:00, 35.83it/s]
992 preprocess_samples begin ...
993 uncertainty shape: 1530
994 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
995 classify begin
996 5711
997 0%|          | 0/30 [00:00<?, ?it/s]
```

```
997 MCD_BALD_sampling_20epoch
998 MCD_BALD_sampling_20epoch
999 616it [00:16, 199.31it/s]MCD_BALD_sampling_20epoch
1000 MCD_BALD_sampling_20epoch
1001 MCD_BALD_sampling_20epoch
1002 MCD_BALD_sampling_20epoch
1003 1253it [00:30, 175.31it/s]MCD_BALD_sampling_20epoch
1004 MCD_BALD_sampling_20epoch
1005 MCD_BALD_sampling_20epoch
1006 1276it [00:41, 175.31it/s]MCD_BALD_sampling_20epoch
1007 1897it [00:45, 218.07it/s]MCD_BALD_sampling_20epoch
1008 MCD_BALD_sampling_20epoch
1009 MCD_BALD_sampling_20epoch
1010 MCD_BALD_sampling_20epoch
1011 2525it [00:59, 174.89it/s]MCD_BALD_sampling_20epoch
1012 MCD_BALD_sampling_20epoch
1013 MCD_BALD_sampling_20epoch
1014 2552it [01:11, 174.89it/s]MCD_BALD_sampling_20epoch
1015 3155it [01:14, 181.89it/s]MCD_BALD_sampling_20epoch
1016 MCD_BALD_sampling_20epoch
1017 MCD_BALD_sampling_20epoch
1018 MCD_BALD_sampling_20epoch
1019 3768it [01:29, 145.16it/s]MCD_BALD_sampling_20epoch
1020 MCD_BALD_sampling_20epoch
1021 MCD_BALD_sampling_20epoch
1022 3829it [01:42, 18.07it/s] MCD_BALD_sampling_20epoch
1023 4442it [01:43, 190.56it/s]MCD_BALD_sampling_20epoch
1024 MCD_BALD_sampling_20epoch
1025 MCD_BALD_sampling_20epoch
1026 MCD_BALD_sampling_20epoch
1027 5063it [01:57, 148.51it/s]MCD_BALD_sampling_20epoch
1028 MCD_BALD_sampling_20epoch
1029 MCD_BALD_sampling_20epoch
1030 MCD_BALD_sampling_20epoch
1031 5715it [02:11, 175.55it/s]MCD_BALD_sampling_20epoch
1032 MCD_BALD_sampling_20epoch
1033 MCD_BALD_sampling_20epoch
1034 5742it [02:21, 175.55it/s]MCD_BALD_sampling_20epoch
1035 6345it [02:28, 268.17it/s]MCD_BALD_sampling_20epoch
1036 MCD_BALD_sampling_20epoch
1037 MCD_BALD_sampling_20epoch
```

1038	6380it	[02:41, 268.17it/s]	MCD_BALD_sampling_20epoch
1039	7015it	[02:44, 208.36it/s]	MCD_BALD_sampling_20epoch
1040	MCD_BALD_sampling_20epoch		
1041	MCD_BALD_sampling_20epoch		
1042	MCD_BALD_sampling_20epoch		
1043	7642it	[02:58, 169.27it/s]	MCD_BALD_sampling_20epoch
1044	MCD_BALD_sampling_20epoch		
1045	MCD_BALD_sampling_20epoch		
1046	7657it	[03:12, 13.07it/s]	MCD_BALD_sampling_20epoch
1047	8289it	[03:13, 215.36it/s]	MCD_BALD_sampling_20epoch
1048	MCD_BALD_sampling_20epoch		
1049	MCD_BALD_sampling_20epoch		
1050	MCD_BALD_sampling_20epoch		
1051	8925it	[03:28, 172.38it/s]	MCD_BALD_sampling_20epoch
1052	MCD_BALD_sampling_20epoch		
1053	MCD_BALD_sampling_20epoch		
1054	8933it	[03:41, 13.25it/s]	MCD_BALD_sampling_20epoch
1055	9537it	[03:42, 188.51it/s]	MCD_BALD_sampling_20epoch
1056	MCD_BALD_sampling_20epoch		
1057	MCD_BALD_sampling_20epoch		
1058	MCD_BALD_sampling_20epoch		
1059	10142it	[03:56, 145.38it/s]	
			MCD_BALD_sampling_20epoch
1060	MCD_BALD_sampling_20epoch		
1061	MCD_BALD_sampling_20epoch		
1062	MCD_BALD_sampling_20epoch		
1063	10794it	[04:10, 175.42it/s]	
			MCD_BALD_sampling_20epoch
1064	MCD_BALD_sampling_20epoch		
1065	MCD_BALD_sampling_20epoch		
1066	10846it	[04:21, 175.42it/s]	
			MCD_BALD_sampling_20epoch
1067	11473it	[04:25, 225.80it/s]	
			MCD_BALD_sampling_20epoch
1068	MCD_BALD_sampling_20epoch		
1069	MCD_BALD_sampling_20epoch		
1070	MCD_BALD_sampling_20epoch		
1071	12044it	[04:39, 135.74it/s]	
			MCD_BALD_sampling_20epoch
1072	MCD_BALD_sampling_20epoch		
1073	MCD_BALD_sampling_20epoch		

1074	12123it [04:53, 17.89it/s]
	MCD_BALD_sampling_20epoch
1075	12682it [04:54, 174.08it/s]
	MCD_BALD_sampling_20epoch
1076	MCD_BALD_sampling_20epoch
1077	MCD_BALD_sampling_20epoch
1078	MCD_BALD_sampling_20epoch
1079	13355it [05:08, 212.25it/s]
	MCD_BALD_sampling_20epoch
1080	MCD_BALD_sampling_20epoch
1081	MCD_BALD_sampling_20epoch
1082	13399it [05:22, 14.95it/s]
	MCD_BALD_sampling_20epoch
1083	13997it [05:23, 189.43it/s]
	MCD_BALD_sampling_20epoch
1084	MCD_BALD_sampling_20epoch
1085	MCD_BALD_sampling_20epoch
1086	MCD_BALD_sampling_20epoch
1087	14607it [05:37, 143.21it/s]
	MCD_BALD_sampling_20epoch
1088	MCD_BALD_sampling_20epoch
1089	MCD_BALD_sampling_20epoch
1090	MCD_BALD_sampling_20epoch
1091	15289it [05:51, 178.04it/s]
	MCD_BALD_sampling_20epoch
1092	MCD_BALD_sampling_20epoch
1093	MCD_BALD_sampling_20epoch
1094	15313it [06:05, 15.36it/s]
	MCD_BALD_sampling_20epoch
1095	15941it [06:05, 214.70it/s]
	MCD_BALD_sampling_20epoch
1096	MCD_BALD_sampling_20epoch
1097	MCD_BALD_sampling_20epoch
1098	MCD_BALD_sampling_20epoch
1099	16570it [06:20, 171.85it/s]
	MCD_BALD_sampling_20epoch
1100	MCD_BALD_sampling_20epoch
1101	MCD_BALD_sampling_20epoch
1102	16588it [06:31, 171.85it/s]
	MCD_BALD_sampling_20epoch
1103	17160it [06:35, 174.87it/s]

```
1103 MCD_BALD_sampling_20epoch
1104 MCD_BALD_sampling_20epoch
1105 MCD_BALD_sampling_20epoch
1106 MCD_BALD_sampling_20epoch
1107 17803it [06:49, 175.35it/s]
    MCD_BALD_sampling_20epoch
1108 MCD_BALD_sampling_20epoch
1109 MCD_BALD_sampling_20epoch
1110 17864it [07:01, 175.35it/s]
    MCD_BALD_sampling_20epoch
1111 18428it [07:04, 172.54it/s]
    MCD_BALD_sampling_20epoch
1112 MCD_BALD_sampling_20epoch
1113 MCD_BALD_sampling_20epoch
1114 MCD_BALD_sampling_20epoch
1115 19074it [07:19, 169.99it/s]
    MCD_BALD_sampling_20epoch
1116 MCD_BALD_sampling_20epoch
1117 MCD_BALD_sampling_20epoch
1118 MCD_BALD_sampling_20epoch
1119 19140it [07:31, 169.99it/s]
    MCD_BALD_sampling_20epoch
1120 MCD_BALD_sampling_20epoch
1121 global t is : 5
1122 test epoch results {'accuracy': 0.6019607843137255
, 'f1_weighted': 0.5759097041078544, 'f1_macro': 0.
49113896528920215, 'f1': array([0.85213033, 0.
26415094, 0.43373494, 0.27848101, 0.63019694,
1123 0.11650485, 0.64150943, 0.61199295, 0.
5915493]), 'precision': array([0.83333333, 0.4375
, 0.52941176, 0.64705882, 0.59259259,
1124 0.42857143, 0.70833333, 0.50879765, 0.
66037736]), 'recall': array([0.87179487, 0.18918919
, 0.36734694, 0.17741935, 0.6728972 ,
1125 0.06741573, 0.5862069 , 0.76769912, 0.
53571429])}
1126 val epoch results {'accuracy': 0.6225749559082893
, 'f1_weighted': 0.5919454455042377, 'f1_macro': 0.
4678090723980606, 'f1': array([0.90810811, 0
.
, 0.37037037, 0.27692308, 0.65142857,
1127 0.21052632, 0.56565657, 0.63679245, 0.
```

```

1127 59047619]), 'precision': array([0.89361702, 0
1128 . , 0.55555556, 0.52941176, 0.62637363,
1129 0.8 , 0.73684211, 0.51724138, 0.
63265306]), 'recall': array([0.92307692, 0
1129 . , 0.27777778, 0.1875 , 0.67857143,
1129 0.12121212, 0.45901639, 0.82822086, 0.
55357143])}
1130 19140it [07:35, 42.02it/s]
1131 mc dropout new embedding 8741
1132 [tensor([[0.1499, 0.0893, 0.0928, 0.1579, 0.1067, 0
.0684, 0.1145, 0.0991, 0.1213]]), tensor([[0.1367,
0.0772, 0.1050, 0.1613, 0.1223, 0.0653, 0.1046, 0.
0915, 0.1360]]), tensor([[0.1407, 0.0814, 0.0935, 0
.1498, 0.1143, 0.0736, 0.1324, 0.0992, 0.1150]]),
tensor([[0.1508, 0.0828, 0.0953, 0.1548, 0.1123, 0.
0787, 0.1143, 0.1061, 0.1048]]), tensor([[0.1880, 0
.0804, 0.0881, 0.1478, 0.1073, 0.0764, 0.1129, 0.
0945, 0.1046]]), tensor([[0.1579, 0.0779, 0.1020, 0
.1762, 0.1153, 0.0710, 0.0939, 0.0958, 0.1100]]),
tensor([[0.1806, 0.0817, 0.0960, 0.1548, 0.1202, 0.
0708, 0.1002, 0.0813, 0.1145]]), tensor([[0.1660, 0
.0851, 0.1074, 0.1490, 0.1121, 0.0602, 0.1023, 0.
0914, 0.1267]]), tensor([[0.1598, 0.0866, 0.1033, 0
.1634, 0.1095, 0.0682, 0.1042, 0.0936, 0.1114]]),
tensor([[0.1627, 0.0812, 0.1102, 0.1625, 0.1128, 0.
0786, 0.0956, 0.0927, 0.1038]]), tensor([[0.1397, 0
.0769, 0.0941, 0.1758, 0.1089, 0.0656, 0.1077, 0.
0930, 0.1383]]), tensor([[0.1423, 0.0777, 0.0975, 0
.1761, 0.1088, 0.0670, 0.1024, 0.1001, 0.1281]]),
tensor([[0.1650, 0.0794, 0.0967, 0.1664, 0.1075, 0.
0675, 0.1061, 0.0897, 0.1218]]), tensor([[0.1373, 0
.0789, 0.0877, 0.1671, 0.1143, 0.0744, 0.1205, 0.
0903, 0.1296]]), tensor([[0.1393, 0.0881, 0.1095, 0
.1701, 0.1280, 0.0644, 0.1029, 0.0889, 0.1088]]),
tensor([[0.1335, 0.0720, 0.0939, 0.1707, 0.1211, 0.
0702, 0.1088, 0.0977, 0.1322]]), tensor([[0.1568, 0
.0830, 0.0887, 0.1574, 0.1218, 0.0663, 0.1122, 0.
0871, 0.1267]]), tensor([[0.1845, 0.0952, 0.0982, 0
.1541, 0.1126, 0.0632, 0.0963, 0.0916, 0.1042]]),
tensor([[0.1614, 0.0911, 0.0982, 0.1641, 0.1052, 0.
0784, 0.1040, 0.0945, 0.1031]]), tensor([[0.1506, 0

```

```

1132 0.0930, 0.0959, 0.1533, 0.0959, 0.0703, 0.1250, 0.
    1007, 0.1153]]), tensor([[0.1705, 0.0710, 0.0973, 0
    .1592, 0.1131, 0.0756, 0.1030, 0.0925, 0.1178]]),
    tensor([[0.1303, 0.0754, 0.0872, 0.1718, 0.1129, 0.
    0687, 0.1133, 0.1018, 0.1386]]), tensor([[0.1382, 0
    .0751, 0.0918, 0.1587, 0.1114, 0.0788, 0.1259, 0.
    1030, 0.1171]]), tensor([[0.1347, 0.0718, 0.0884, 0
    .1642, 0.1020, 0.0858, 0.1359, 0.1055, 0.1117]]),
    tensor([[0.1632, 0.0902, 0.0938, 0.1608, 0.0994, 0.
    0673, 0.1114, 0.0991, 0.1148]]), tensor([[0.1587, 0
    .0848, 0.0923, 0.1846, 0.1027, 0.0652, 0.1008, 0.
    0944, 0.1165]]), tensor([[0.1580, 0.0751, 0.0944, 0
    .1743, 0.1123, 0.0585, 0.1029, 0.0907, 0.1338]]),
    tensor([[0.1733, 0.0895, 0.1065, 0.1530, 0.1145, 0.
    0657, 0.0951, 0.0974, 0.1049]]), tensor([[0.1708, 0
    .0798, 0.0869, 0.1644, 0.1153, 0.0746, 0.1027, 0.
    0911, 0.1145]]), tensor([[0.1432, 0.0777, 0.0880, 0
    .1680, 0.0968, 0.0734, 0.1183, 0.1089, 0.1256]]),
    tensor([[0.1579, 0.0794, 0.1042, 0.1744, 0.1000, 0.
    0755, 0.1080, 0.1042, 0.0963]]), tensor([[0.1489, 0
    .0751, 0.0938, 0.1590, 0.1182, 0.0697, 0.1179, 0.
    0920, 0.1254]]), tensor([[0.1521, 0.0793, 0.0935, 0
    .1523, 0.1130, 0.0683, 0.1174, 0.0951, 0.1289]]),
    tensor([[0.1571, 0.0716, 0.0972, 0.1643, 0.1224, 0.
    0718, 0.1019, 0.0922, 0.1216]]), tensor([[0.1495, 0
    .0783, 0.0927, 0.1537, 0.1142, 0.0709, 0.1208, 0.
    1032, 0.1168]]), tensor([[0.1442, 0.0755, 0.0904, 0
    .1628, 0.1138, 0.0793, 0.1244, 0.1012, 0.1084]]),
    tensor([[0.1802, 0.0824, 0.0975, 0.1552, 0.1017, 0.
    0684, 0.1084, 0.0901, 0.1160]]), tensor([[0.1297, 0
    .0810, 0.0937, 0.1461, 0.1101, 0.0790, 0.1386, 0.
    1030, 0.1188]]), tensor([[0.1331, 0.0755, 0.0982, 0
    .1784, 0.1154, 0.0716, 0.1187, 0.0925, 0.1167]]),
    tensor([[0.1672, 0.0835, 0.0926, 0.1491, 0.1178, 0.
    0631, 0.1025, 0.0895, 0.1347]]), tensor([[0.1737, 0
    .0805, 0.0886, 0.1659, 0.0973, 0.0726, 0.1096, 0.
    0938, 0.1180]]), tensor([[0.1551, 0.0692, 0.0865, 0
    .1813, 0.1086, 0.0639, 0.1097, 0.0992, 0.1266]]),
    tensor([[0.1583, 0.0763, 0.0922, 0.1642, 0.1147, 0.
    0708, 0.1161, 0.0883, 0.1191]]), tensor([[0.1545, 0
    .0795, 0.0899, 0.1752, 0.0971, 0.0648, 0.1209, 0.

```

```
1132 0877, 0.1304]])), tensor([[0.1490, 0.0833, 0.0944, 0
    .1681, 0.1092, 0.0763, 0.1194, 0.0950, 0.1052]]),
    tensor([[0.1670, 0.0773, 0.0898, 0.1627, 0.1073, 0.
    0637, 0.1001, 0.0919, 0.1402]])), tensor([[0.1542, 0
    .0808, 0.0923, 0.1465, 0.1098, 0.0742, 0.1059, 0.
    1026, 0.1338]])), tensor([[0.1461, 0.0746, 0.0874, 0
    .1681, 0.1066, 0.0618, 0.1171, 0.0993, 0.1390]])),
    tensor([[0.1604, 0.0775, 0.0853, 0.1694, 0.1063, 0.
    0736, 0.1087, 0.0906, 0.1281]])), tensor([[0.1274, 0
    .0851, 0.0976, 0.1553, 0.1211, 0.0790, 0.1146, 0.
    1070, 0.1128]]])
1133 [7744, 5637, 4074, 8063, 1042, 7423, 2504, 2275,
    2366, 1510, 7263, 5680, 3281, 24, 5854, 1240, 2506
    , 4078, 8463, 1368, 8015, 591, 1035, 4562, 7425,
    3748, 2430, 704, 8200, 1055, 4696, 342, 7590, 1207
    , 65, 2484, 2754, 8572, 1620, 3490, 5642, 4857,
    4578, 6220, 1666, 2921, 1764, 3794, 8271, 6751,
    3296, 7522, 6653, 5317, 8364, 2791, 5363, 5157,
    3983, 5106, 4480, 1933, 7562, 1517, 1748, 7639,
    3579, 6542, 4311, 5266, 2234, 1101, 3305, 6451,
    6168, 6134, 2972, 7918, 4211, 4592, 8619, 2516,
    4223, 1355, 4979, 5066, 3379, 8319, 3487, 1146,
    4526, 6759, 1157, 2220, 3495, 5769, 1206, 6205, 576
    , 7486, 310, 1062, 6138, 7846, 860, 5005, 3278,
    2071, 4038, 1578, 2167, 7596, 8005, 7209, 7659,
    8471, 6723, 1986, 2279, 4028, 4679, 4894, 4027,
    3432, 6305, 6693, 2611, 3065, 7902, 3641, 1988,
    2492, 3716, 3878, 1718, 1008, 4384, 6215, 6369,
    6838, 5009, 4109, 2052, 7693, 5890, 4637, 1073,
    3900, 1825, 2126, 6560, 6577, 8536, 284, 8509, 8268
    , 607, 1755, 6462, 6237, 7361, 4881, 7317, 3302,
    7706, 5986, 7304, 8405, 549, 7491, 7325, 4929, 8428
    , 5012, 4868, 3346, 2361, 3022, 8446, 4817, 3603,
    7755, 169, 2550, 7107, 4655, 4538, 2143, 8408, 7767
    , 2051, 3974, 3750, 2726, 1385, 4407, 2223, 411,
    2474, 6495, 6394, 7534, 2714, 5844, 4438, 6022,
    5016, 581, 8561, 1092, 8654, 6023, 4790, 2464, 8577
    , 5695, 7703, 5200, 1348, 8149, 1575, 6125, 3848,
    1140, 7851, 1328, 823, 1130, 5966, 2552, 8134, 3173
    , 5480, 4627, 7165, 6960, 1949, 380, 967, 4880, 821
    , 2348, 5830, 4308, 5147, 1859, 2751, 3492, 7174,
```

```
1133 7971, 1466, 4373, 6549, 8124, 7539, 252, 951, 4041  
, 5314, 6881, 8111, 7025, 8014, 5151, 7883, 8244,  
195, 6640, 1916, 2928, 1716, 7072, 3477, 7309, 5222  
, 7574, 4782, 3424, 8288, 5075, 5843, 4754, 2970,  
7470, 5267, 7807, 7018, 8374, 6825, 7549, 1489,  
1282, 1065, 2859, 7189, 5533, 2036, 8633, 5011,  
7741, 6322, 2127, 6917, 690, 6899, 4701, 932, 1907  
, 6487, 7345, 321, 4432, 8293, 979, 71, 5306, 2026  
, 8658, 3433, 8543, 2536, 2841, 2962, 410, 4000,  
2246, 4085, 2938, 6879, 4896, 8433, 6623, 81, 2418  
, 3917, 5916, 8533, 4762, 6558, 6223, 7575, 6378,  
5786, 2689, 3291, 5978, 1381, 4740, 6521, 2948, 973  
, 6047, 2670, 6806, 654, 5261, 7606, 6037, 2433,  
6537, 4822, 8540, 4364, 4098, 1713, 5388, 8719,  
3916, 3251, 397, 7742, 2427, 1369, 5427, 7375, 1915  
, 2941, 8702, 8334, 132, 5126, 7566, 8160, 2375,  
3007, 3789, 2344, 114, 5, 1077, 240, 983, 4262, 89  
, 6082, 1846, 7835, 7908, 3435, 5081, 8690, 206,  
1181, 2811, 8455, 3639, 5352, 1555, 99, 142, 6321,  
3340, 7669, 7300, 1700, 7142, 3385, 6477, 7307,  
2628, 3706, 5654, 1925, 1617, 1539, 3505, 3342,  
1861, 1955, 794, 3609, 2737, 6874, 6940, 1279, 2285  
, 8653, 2584, 425, 3320, 96, 8019, 3189, 5565, 4809  
, 7240, 2855, 2763, 4271, 8734, 2354, 2891, 3712,  
7206, 2008, 95, 1245, 935, 8183, 7235, 6393, 2615,  
4563, 4763, 2519, 1128, 1017, 1031, 1354, 4624,  
6132, 1193, 6957, 1076, 367, 5002, 1782, 7758, 2296  
, 8627, 8282, 4916, 7729, 7311, 489, 7380, 2786,  
4630, 648, 1248, 4639, 3464, 2518, 5139, 4441, 6041  
, 6326, 6159, 129, 1465]  
1134 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1135 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 178.92it/s]  
1136 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-87dfb8339decf36c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1137 100%|██████████| 1/1 [00:00<00:00, 90.78it/s]
```

```
1138 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
87dfb8339decf36c/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1139 Downloading data files: 100%|██████████| 1/1 [00:00
<00:00, 1855.07it/s]
1140 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-f3de1f5c9aa59b3b/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1141 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 142.17it/s]
1142 100%|██████████| 1/1 [00:00<00:00, 87.05it/s]
1143 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
f3de1f5c9aa59b3b/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1144 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1145 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 141.47it/s]
1146 Generating train split: 0 examples [00:00, ?
examples/s] Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-7928a970cfb6b128/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1147 100%|██████████| 1/1 [00:00<00:00, 83.08it/s]
1148 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
7928a970cfb6b128/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1149 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
```

```
1150 Extracting data files:  0% | 0/1 [00:00
    <?, ?it/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-a865c538f1903092/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1151 Extracting data files: 100% | [REDACTED] | 1/1 [00:00<
    00:00,  8.96it/s]
1152  0% | 0/1 [00:00<?, ?it/s]Dataset csv
    downloaded and prepared to C:/Users/admin/.cache/
    huggingface/datasets/csv/default-a865c538f1903092/0
    .0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1153 100% | [REDACTED] | 1/1 [00:00<00:00, 47.64it/s]
1154 t is : 6
1155 addlen is: 3000
1156 noexp_df.shape[0] last 8241
1157 unexplained dataset length is:
1158 8241
1159 embedding begin
1160 trian and val dataset length: 93150
1161 MCD_BALD_sampling_20epoch
1162 MCD_BALD_sampling_20epoch
1163 MCD_BALD_sampling_20epoch
1164 MCD_BALD_sampling_20epoch
1165 MCD_BALD_sampling_20epoch
1166 MCD_BALD_sampling_20epoch
1167 MCD_BALD_sampling_20epoch
1168 MCD_BALD_sampling_20epoch
1169 torch.Size([9315, 30])
1170 621.0
1171 torch.Size([6210, 45])
1172 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
1173 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-13d732cca8165853/0
    .0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1)
```

```
1174 100%|██████████| 1/1 [00:00<00:00, 66.86it/s]
1175 test len 24075
1176 Downloading data files: 100%|██████████| 1/1 [00:00
<00:00, 1006.31it/s]
1177 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 143.29it/s]
1178 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-f2194e391b6e77a0/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1179 100%|██████████| 1/1 [00:00<00:00, 83.25it/s]
1180 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
f2194e391b6e77a0/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1181 preprocess_samples begin ...
1182 uncertainty shape: 1530
1183 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
1184 classify begin
1185 6211
1186 0%|          | 0/30 [00:00<?, ?it/s]
    MCD_BALD_sampling_20epoch
1187 MCD_BALD_sampling_20epoch
1188 676it [00:16, 249.60it/s]MCD_BALD_sampling_20epoch
1189 MCD_BALD_sampling_20epoch
1190 MCD_BALD_sampling_20epoch
1191 MCD_BALD_sampling_20epoch
1192 1388it [00:31, 225.44it/s]MCD_BALD_sampling_20epoch
1193 MCD_BALD_sampling_20epoch
1194 MCD_BALD_sampling_20epoch
1195 1398it [00:42, 225.44it/s]MCD_BALD_sampling_20epoch
1196 2041it [00:46, 259.54it/s]MCD_BALD_sampling_20epoch
1197 MCD_BALD_sampling_20epoch
1198 MCD_BALD_sampling_20epoch
1199 MCD_BALD_sampling_20epoch
1200 2738it [01:01, 193.39it/s]MCD_BALD_sampling_20epoch
```

```
1201 MCD_BALD_sampling_20epoch
1202 MCD_BALD_sampling_20epoch
1203 2797it [01:15, 18.15it/s] MCD_BALD_sampling_20epoch
1204 3491it [01:15, 252.31it/s] MCD_BALD_sampling_20epoch
1205 MCD_BALD_sampling_20epoch
1206 MCD_BALD_sampling_20epoch
1207 MCD_BALD_sampling_20epoch
1208 4164it [01:30, 180.76it/s] MCD_BALD_sampling_20epoch
1209 MCD_BALD_sampling_20epoch
1210 MCD_BALD_sampling_20epoch
1211 4194it [01:42, 180.76it/s] MCD_BALD_sampling_20epoch
1212 4836it [01:44, 231.75it/s] MCD_BALD_sampling_20epoch
1213 MCD_BALD_sampling_20epoch
1214 MCD_BALD_sampling_20epoch
1215 MCD_BALD_sampling_20epoch
1216 5557it [01:59, 226.70it/s] MCD_BALD_sampling_20epoch
1217 MCD_BALD_sampling_20epoch
1218 MCD_BALD_sampling_20epoch
1219 5592it [02:12, 226.70it/s] MCD_BALD_sampling_20epoch
1220 6224it [02:14, 227.41it/s] MCD_BALD_sampling_20epoch
1221 MCD_BALD_sampling_20epoch
1222 MCD_BALD_sampling_20epoch
1223 MCD_BALD_sampling_20epoch
1224 6959it [02:28, 228.90it/s] MCD_BALD_sampling_20epoch
1225 MCD_BALD_sampling_20epoch
1226 MCD_BALD_sampling_20epoch
1227 6990it [02:42, 228.90it/s] MCD_BALD_sampling_20epoch
1228 7684it [02:43, 281.26it/s] MCD_BALD_sampling_20epoch
1229 MCD_BALD_sampling_20epoch
1230 MCD_BALD_sampling_20epoch
1231 MCD_BALD_sampling_20epoch
1232 8376it [02:58, 190.67it/s] MCD_BALD_sampling_20epoch
1233 MCD_BALD_sampling_20epoch
1234 MCD_BALD_sampling_20epoch
1235 MCD_BALD_sampling_20epoch
1236 8998it [03:12, 149.28it/s] MCD_BALD_sampling_20epoch
1237 MCD_BALD_sampling_20epoch
1238 MCD_BALD_sampling_20epoch
1239 MCD_BALD_sampling_20epoch
1240 9707it [03:26, 194.22it/s] MCD_BALD_sampling_20epoch
1241 MCD_BALD_sampling_20epoch
```

```
1242 MCD_BALD_sampling_20epoch
1243 MCD_BALD_sampling_20epoch
1244 10457it [03:41, 265.74it/s]
    MCD_BALD_sampling_20epoch
1245 MCD_BALD_sampling_20epoch
1246 MCD_BALD_sampling_20epoch
1247 10486it [03:55, 14.21it/s]
    MCD_BALD_sampling_20epoch
1248 11183it [03:56, 261.34it/s]
    MCD_BALD_sampling_20epoch
1249 MCD_BALD_sampling_20epoch
1250 MCD_BALD_sampling_20epoch
1251 MCD_BALD_sampling_20epoch
1252 11821it [04:13, 180.23it/s]
    MCD_BALD_sampling_20epoch
1253 MCD_BALD_sampling_20epoch
1254 MCD_BALD_sampling_20epoch
1255 MCD_BALD_sampling_20epoch
1256 12546it [04:28, 229.29it/s]
    MCD_BALD_sampling_20epoch
1257 MCD_BALD_sampling_20epoch
1258 MCD_BALD_sampling_20epoch
1259 MCD_BALD_sampling_20epoch
1260 13249it [04:43, 246.32it/s]
    MCD_BALD_sampling_20epoch
1261 MCD_BALD_sampling_20epoch
1262 MCD_BALD_sampling_20epoch
1263 MCD_BALD_sampling_20epoch
1264 13933it [04:57, 217.95it/s]
    MCD_BALD_sampling_20epoch
1265 MCD_BALD_sampling_20epoch
1266 MCD_BALD_sampling_20epoch
1267 MCD_BALD_sampling_20epoch
1268 14592it [05:12, 182.55it/s]
    MCD_BALD_sampling_20epoch
1269 MCD_BALD_sampling_20epoch
1270 MCD_BALD_sampling_20epoch
1271 14680it [05:25, 19.68it/s]
    MCD_BALD_sampling_20epoch
1272 15365it [05:26, 252.12it/s]
    MCD_BALD_sampling_20epoch
```

```
1273 MCD_BALD_sampling_20epoch
1274 MCD_BALD_sampling_20epoch
1275 MCD_BALD_sampling_20epoch
1276 16066it [05:40, 214.30it/s]
    MCD_BALD_sampling_20epoch
1277 MCD_BALD_sampling_20epoch
1278 MCD_BALD_sampling_20epoch
1279 16077it [05:52, 214.30it/s]
    MCD_BALD_sampling_20epoch
1280 16720it [05:55, 226.50it/s]
    MCD_BALD_sampling_20epoch
1281 MCD_BALD_sampling_20epoch
1282 MCD_BALD_sampling_20epoch
1283 MCD_BALD_sampling_20epoch
1284 17442it [06:09, 227.59it/s]
    MCD_BALD_sampling_20epoch
1285 MCD_BALD_sampling_20epoch
1286 MCD_BALD_sampling_20epoch
1287 17475it [06:22, 227.59it/s]
    MCD_BALD_sampling_20epoch
1288 18112it [06:24, 224.10it/s]
    MCD_BALD_sampling_20epoch
1289 MCD_BALD_sampling_20epoch
1290 MCD_BALD_sampling_20epoch
1291 MCD_BALD_sampling_20epoch
1292 18808it [06:39, 210.14it/s]
    MCD_BALD_sampling_20epoch
1293 MCD_BALD_sampling_20epoch
1294 MCD_BALD_sampling_20epoch
1295 18874it [06:53, 16.09it/s]
    MCD_BALD_sampling_20epoch
1296 19547it [06:54, 236.64it/s]
    MCD_BALD_sampling_20epoch
1297 MCD_BALD_sampling_20epoch
1298 MCD_BALD_sampling_20epoch
1299 MCD_BALD_sampling_20epoch
1300 20241it [07:09, 193.45it/s]
    MCD_BALD_sampling_20epoch
1301 MCD_BALD_sampling_20epoch
1302 MCD_BALD_sampling_20epoch
1303 MCD_BALD_sampling_20epoch
```

```

1304 20952it [07:23, 195.41it/s]
    MCD_BALD_sampling_20epoch
1305 MCD_BALD_sampling_20epoch
1306 MCD_BALD_sampling_20epoch
1307 MCD_BALD_sampling_20epoch
1308 MCD_BALD_sampling_20epoch
1309 MCD_BALD_sampling_20epoch
1310 global t is : 6
1311 test epoch results {'accuracy': 0.6111111111111112
, 'f1_weighted': 0.588899915135792, 'f1_macro': 0.
5138245757510609, 'f1': array([0.84653465, 0.
22641509, 0.58 , 0.3190184 , 0.63908046,
1312 0.14159292, 0.65142857, 0.61595547, 0.
6043956 ]), 'precision': array([0.81818182, 0.375
, 0.56862745, 0.66666667, 0.62895928,
1313 0.33333333, 0.64772727, 0.53035144, 0.
6547619 ]), 'recall': array([0.87692308, 0.16216216
, 0.59183673, 0.20967742, 0.64953271,
1314 0.08988764, 0.65517241, 0.73451327, 0.
56122449])}
1315 val epoch results {'accuracy': 0.642512077294686, 'f1_weighted': 0.6186402935692827, 'f1_macro': 0.5307163837610095, 'f1': array([0.87037037, 0.31578947, 0.46666667, 0.27777778, 0.65945946, 0.23809524, 0.72131148, 0.63982103, 0.58715596]), 'precision': array([0.84684685, 0.75 , 0.63636364, 0.5 , 0.65591398, 0.83333333, 0.78571429, 0.52962963, 0.64 ]), 'recall': array([0.8952381 , 0.2 , 0.36842105, 0.19230769, 0.66304348, 0.13888889, 0.66666667, 0.8079096 , 0.54237288])}
1319 20970it [07:39, 45.66it/s]
1320 mc dropout new embedding 8241
1321 [tensor([[0.1231, 0.0855, 0.0699, 0.1428, 0.1109, 0.0787, 0.1157, 0.1227, 0.1508]]), tensor([[0.1120, 0.1036, 0.0772, 0.1602, 0.0944, 0.0772, 0.1154, 0.1163, 0.1437]]), tensor([[0.1328, 0.0970, 0.0763, 0.1449, 0.0983, 0.0802, 0.1213, 0.1180, 0.1311]]), tensor([[0.1520, 0.0930, 0.0693, 0.1401, 0.0888, 0.0832, 0.1205, 0.1122, 0.1408]]), tensor([[0.1401, 0

```

```

1321 .0864, 0.0654, 0.1579, 0.0744, 0.0777, 0.1226, 0.
    1204, 0.1551]], tensor([[0.1460, 0.0986, 0.0684, 0
    .1526, 0.0906, 0.0928, 0.1180, 0.1049, 0.1280]]),
    tensor([[0.1289, 0.0955, 0.0673, 0.1530, 0.0941, 0.
    0857, 0.1160, 0.1133, 0.1464]]), tensor([[0.1251, 0
    .0971, 0.0757, 0.1438, 0.0747, 0.0927, 0.1466, 0.
    1068, 0.1375]]), tensor([[0.1370, 0.0915, 0.0661, 0
    .1610, 0.0904, 0.0758, 0.1256, 0.1072, 0.1453]]),
    tensor([[0.1458, 0.0931, 0.0740, 0.1570, 0.0852, 0.
    0759, 0.1043, 0.1237, 0.1409]]), tensor([[0.1179, 0
    .0908, 0.0781, 0.1571, 0.0717, 0.0899, 0.1208, 0.
    1152, 0.1588]]), tensor([[0.1127, 0.0910, 0.0871, 0
    .1453, 0.0813, 0.0941, 0.1191, 0.1159, 0.1534]]),
    tensor([[0.1342, 0.0865, 0.0618, 0.1590, 0.0834, 0.
    0830, 0.1255, 0.1123, 0.1543]]), tensor([[0.1384, 0
    .0850, 0.0737, 0.1487, 0.1066, 0.0932, 0.1097, 0.
    1228, 0.1218]]), tensor([[0.1371, 0.0873, 0.0659, 0
    .1504, 0.0872, 0.0780, 0.1231, 0.1137, 0.1573]]),
    tensor([[0.1535, 0.0865, 0.0641, 0.1585, 0.0885, 0.
    0781, 0.1127, 0.1191, 0.1391]]), tensor([[0.1041, 0
    .0899, 0.0671, 0.1648, 0.0736, 0.0867, 0.1325, 0.
    1187, 0.1626]]), tensor([[0.1069, 0.0934, 0.0744, 0
    .1582, 0.0810, 0.0967, 0.1230, 0.1162, 0.1502]]),
    tensor([[0.1093, 0.0874, 0.0696, 0.1570, 0.0779, 0.
    0912, 0.1280, 0.1199, 0.1597]]), tensor([[0.1336, 0
    .0912, 0.0632, 0.1409, 0.0900, 0.0872, 0.1250, 0.
    1156, 0.1533]]), tensor([[0.1662, 0.0912, 0.0702, 0
    .1480, 0.0828, 0.0737, 0.1126, 0.1132, 0.1421]]),
    tensor([[0.1477, 0.0879, 0.0612, 0.1621, 0.0809, 0.
    0781, 0.1276, 0.1122, 0.1422]]), tensor([[0.1279, 0
    .0884, 0.0725, 0.1463, 0.0929, 0.0874, 0.1075, 0.
    1186, 0.1585]]), tensor([[0.1497, 0.0953, 0.0757, 0
    .1452, 0.0952, 0.0846, 0.1193, 0.1103, 0.1245]]),
    tensor([[0.1530, 0.0924, 0.0682, 0.1449, 0.0897, 0.
    0781, 0.1358, 0.1038, 0.1341]]), tensor([[0.1430, 0
    .0859, 0.0659, 0.1573, 0.0793, 0.0817, 0.1235, 0.
    1166, 0.1468]]), tensor([[0.1597, 0.0949, 0.0662, 0
    .1490, 0.0791, 0.0757, 0.1200, 0.1105, 0.1450]]),
    tensor([[0.1364, 0.0841, 0.0644, 0.1669, 0.0800, 0.
    0792, 0.1187, 0.1215, 0.1488]]), tensor([[0.1287, 0
    .0867, 0.0650, 0.1409, 0.1114, 0.0901, 0.1166, 0.

```

```

1321 1199, 0.1407]])), tensor([[0.1398, 0.0987, 0.0816, 0
    .1394, 0.0900, 0.0873, 0.1244, 0.1091, 0.1297]]),
    tensor([[0.1305, 0.0945, 0.0692, 0.1484, 0.1007, 0.
    0732, 0.1065, 0.1212, 0.1559]]), tensor([[0.1161, 0
    .0874, 0.0703, 0.1344, 0.1101, 0.0919, 0.1203, 0.
    1169, 0.1526]]), tensor([[0.1413, 0.0800, 0.0587, 0
    .1577, 0.0900, 0.0872, 0.1250, 0.1184, 0.1415]]),
    tensor([[0.1533, 0.1064, 0.0717, 0.1446, 0.0845, 0.
    0773, 0.1239, 0.1026, 0.1357]]), tensor([[0.1589, 0
    .0942, 0.0624, 0.1484, 0.0820, 0.0748, 0.1337, 0.
    1054, 0.1403]]), tensor([[0.1455, 0.0945, 0.0733, 0
    .1372, 0.1009, 0.0868, 0.1226, 0.1076, 0.1317]]),
    tensor([[0.1470, 0.0891, 0.0670, 0.1592, 0.0828, 0.
    0830, 0.1060, 0.1252, 0.1408]]), tensor([[0.1396, 0
    .0887, 0.0824, 0.1436, 0.0787, 0.0970, 0.1281, 0.
    1177, 0.1241]]), tensor([[0.1216, 0.0890, 0.0636, 0
    .1634, 0.0908, 0.0825, 0.1181, 0.1168, 0.1541]]),
    tensor([[0.1226, 0.0913, 0.0649, 0.1669, 0.0896, 0.
    0787, 0.1157, 0.1167, 0.1535]]), tensor([[0.1236, 0
    .0918, 0.0743, 0.1574, 0.0814, 0.0937, 0.1146, 0.
    1200, 0.1431]]), tensor([[0.1107, 0.0879, 0.0734, 0
    .1475, 0.0988, 0.0914, 0.1188, 0.1193, 0.1521]]),
    tensor([[0.1313, 0.0928, 0.0671, 0.1552, 0.0796, 0.
    0790, 0.1301, 0.1130, 0.1519]]), tensor([[0.1315, 0
    .0891, 0.0646, 0.1490, 0.0971, 0.0909, 0.1304, 0.
    1113, 0.1360]]), tensor([[0.1443, 0.0901, 0.0727, 0
    .1549, 0.0849, 0.0885, 0.1091, 0.1116, 0.1438]]),
    tensor([[0.1248, 0.0901, 0.0672, 0.1500, 0.0743, 0.
    0802, 0.1382, 0.1136, 0.1616]]), tensor([[0.1343, 0
    .0930, 0.0736, 0.1512, 0.1068, 0.0784, 0.1108, 0.
    1135, 0.1384]]), tensor([[0.1119, 0.0872, 0.0696, 0
    .1462, 0.0852, 0.0970, 0.1378, 0.1221, 0.1430]]),
    tensor([[0.1282, 0.0928, 0.0736, 0.1529, 0.0986, 0.
    0830, 0.1223, 0.1169, 0.1316]]), tensor([[0.0983, 0
    .0935, 0.0742, 0.1379, 0.0938, 0.1047, 0.1208, 0.
    1224, 0.1544]]])
1322 [5472, 6881, 7001, 7203, 4327, 3045, 3640, 4819,
    1117, 406, 2332, 3088, 3187, 79, 7408, 2340, 1305,
    5995, 2089, 2606, 1716, 4919, 8130, 2242, 4092,
    1494, 7911, 5729, 1092, 4533, 3721, 367, 4546, 4650
    , 4298, 3529, 1566, 4305, 5975, 744, 544, 2741,

```

1322 1342, 5274, 5501, 4872, 6515, 2899, 3873, 7533, 7843, 2854, 998, 4869, 85, 6956, 5726, 6832, 802, 1175, 782, 5577, 7934, 2761, 295, 6269, 5055, 4837, 5046, 3867, 5576, 5922, 5812, 5785, 807, 212, 5629, 8, 5895, 7702, 2142, 3037, 2465, 1387, 4998, 3318, 3796, 8132, 68, 732, 7067, 1606, 3795, 7211, 3243, 6026, 6646, 4973, 3697, 4255, 4537, 4696, 5923, 1648, 8209, 2326, 7022, 7204, 3030, 7822, 1058, 2823, 2866, 4720, 1112, 2951, 4637, 7351, 6485, 2605, 749, 6572, 3465, 1213, 1966, 1834, 296, 2839, 6270, 6091, 1093, 1369, 6458, 3910, 841, 7369, 6815, 2627, 4999, 2915, 5902, 7540, 6674, 1667, 7883, 552, 162, 4620, 3812, 6047, 7637, 790, 1962, 1003, 3653, 7788, 1776, 5523, 3360, 5952, 7343, 1594, 268, 7946, 7149, 5392, 6076, 7048, 3970, 2770, 7399, 3662, 7736, 3958, 5412, 8028, 5967, 5371, 3676, 5605, 6070, 1344, 5966, 1156, 2871, 3872, 1923, 896, 6675, 3780, 6031, 1503, 3633, 391, 3081, 1575, 5690, 745, 7591, 4060, 3959, 1845, 2665, 3833, 307, 7665, 2968, 2150, 6315, 6931, 5587, 7101, 1016, 353, 3154, 2985, 5664, 3486, 7811, 7459, 3147, 7355, 4928, 3098, 2413, 821, 1968, 4660, 7556, 3028, 3305, 1560, 2519, 6067, 4051, 6686, 5424, 8003, 798, 899, 3184, 57, 4848, 3209, 1373, 8198, 4786, 1780, 829, 3869, 5656, 3623, 2566, 4521, 2626, 5054, 698, 8211, 4163, 2774, 1832, 1726, 260, 7652, 2478, 2756, 3000, 1472, 5059, 8197, 1061, 580, 2658, 4415, 5459, 7301, 1411, 2026, 2695, 5146, 3029, 6706, 5340, 3644, 5535, 5286, 7833, 4299, 7266, 4015, 1530, 658, 3474, 4801, 7691, 1470, 408, 3510, 1660, 3828, 7407, 7655, 1459, 1234, 7992, 2016, 561, 8185, 5049, 4576, 4001, 7418, 7068, 775, 6303, 6885, 5278, 2943, 1152, 3307, 7955, 4052, 5228, 489, 7593, 2085, 1262, 6130, 7551, 4479, 1613, 5181, 3289, 3083, 347, 1896, 7252, 2448, 4738, 4204, 6769, 2011, 6054, 3497, 1046, 4347, 6812, 7623, 1866, 4063, 5275, 4301, 4612, 6161, 539, 6791, 2893, 22, 2655, 969, 7463, 6198, 3803, 6845, 6988, 7989, 900, 6877, 4010, 6282, 6424, 2754, 2563, 6393, 6366, 1199, 2272, 6680, 2620, 3329, 2269, 6477, 2199, 954, 6418, 5862, 991, 3892, 5761

1322 , 1396, 38, 7677, 701, 2541, 3836, 3941, 7317, 3998
, 4213, 3204, 1812, 7062, 5101, 6239, 4613, 5162,
48, 5568, 3212, 740, 3177, 4903, 7163, 4433, 8217,
912, 5033, 519, 2025, 4584, 532, 3023, 6534, 2509,
840, 7333, 7002, 2372, 5551, 3309, 6271, 6814, 6473
, 650, 4293, 7274, 27, 1231, 2607, 4282, 7499, 6144
, 1034, 6798, 7405, 3452, 5157, 3997, 6839, 7233,
1643, 176, 3492, 462, 888, 3498, 5126, 6545, 5342,
1853, 1990, 1309, 6409, 1898, 5937, 5714, 8129,
7704, 5783, 4752, 2019, 4711, 2927, 424, 1063, 5421
, 1366, 2297, 7739, 6268, 6638, 5221, 5897, 2694,
3391, 5878, 5289, 6213, 15, 292, 7444, 5770, 7217,
3313, 5063, 1819, 6896, 2082, 7536, 7265]

1323 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]

1324 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 125.41it/s]

1325 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-67eec5c297da0510/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...

1326 100%|██████████| 1/1 [00:00<00:00, 71.83it/s]

1327 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
67eec5c297da0510/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.

1328 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]

1329 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-2e724acd11d7c328/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...

1330 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 125.39it/s]

1331 100%|██████████| 1/1 [00:00<00:00, 77.29it/s]

1332 Dataset csv downloaded and prepared to C:/Users/

```
1332 admin/.cache/huggingface/datasets/csv/default-  
2e724acd11d7c328/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.  
1333 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1334 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.13it/s]  
1335 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-daf1da2eba5dab96/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1336 100%|██████████| 1/1 [00:00<00:00, 99.71it/s]  
1337 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
daf1da2eba5dab96/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.  
1338 Downloading data files: 100%|██████████| 1/1 [00:00  
<00:00, 971.58it/s]  
1339 Extracting data files: 0%|          | 0/1 [00:00  
<, ?it/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-7761fd0569a8b47c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1340 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 8.58it/s]  
1341 100%|██████████| 1/1 [00:00<00:00, 66.90it/s]  
1342 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
7761fd0569a8b47c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.  
1343 t is : 7  
1344 addlen is: 3500
```

```
1345 noexp_df.shape[0] last 7741
1346 unexplained dataset length is:
1347 7741
1348 embedding begin
1349 trian and val dataset length: 106560
1350 MCD_BALD_sampling_20epoch
1351 MCD_BALD_sampling_20epoch
1352 MCD_BALD_sampling_20epoch
1353 MCD_BALD_sampling_20epoch
1354 MCD_BALD_sampling_20epoch
1355 MCD_BALD_sampling_20epoch
1356 MCD_BALD_sampling_20epoch
1357 MCD_BALD_sampling_20epoch
1358 torch.Size([10656, 30])
1359 666.0
1360 torch.Size([6660, 48])
1361 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
1362 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-13d732cca8165853/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1)
1363 100%|██████████| 1/1 [00:00<00:00, 1002.94it/s]
1364 test len 25680
1365 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-915531cd7e24d3cc/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1366 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1367 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 134.41it/s]
1368 100%|██████████| 1/1 [00:00<00:00, 71.64it/s]
1369 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
915531cd7e24d3cc/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
```

```
1370 preprocess_samples begin ...
1371 uncertainty shape: 1530
1372 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
1373 classify begin
1374 6711
1375 0% | 0/30 [00:00<?, ?it/s]
    MCD_BALD_sampling_20epoch
1376 MCD_BALD_sampling_20epoch
1377 747it [00:09, 428.70it/s]MCD_BALD_sampling_20epoch
1378 MCD_BALD_sampling_20epoch
1379 MCD_BALD_sampling_20epoch
1380 MCD_BALD_sampling_20epoch
1381 1450it [00:23, 228.29it/s]MCD_BALD_sampling_20epoch
1382 MCD_BALD_sampling_20epoch
1383 MCD_BALD_sampling_20epoch
1384 1500it [00:36, 228.29it/s]MCD_BALD_sampling_20epoch
1385 2207it [00:38, 321.85it/s]MCD_BALD_sampling_20epoch
1386 MCD_BALD_sampling_20epoch
1387 MCD_BALD_sampling_20epoch
1388 MCD_BALD_sampling_20epoch
1389 2997it [00:54, 323.50it/s]MCD_BALD_sampling_20epoch
1390 MCD_BALD_sampling_20epoch
1391 MCD_BALD_sampling_20epoch
1392 3001it [01:07, 12.33it/s] MCD_BALD_sampling_20epoch
1393 3660it [01:08, 241.75it/s]MCD_BALD_sampling_20epoch
1394 MCD_BALD_sampling_20epoch
1395 MCD_BALD_sampling_20epoch
1396 MCD_BALD_sampling_20epoch
1397 4436it [01:22, 257.63it/s]MCD_BALD_sampling_20epoch
1398 MCD_BALD_sampling_20epoch
1399 MCD_BALD_sampling_20epoch
1400 MCD_BALD_sampling_20epoch
1401 5204it [01:37, 250.56it/s]MCD_BALD_sampling_20epoch
1402 MCD_BALD_sampling_20epoch
1403 MCD_BALD_sampling_20epoch
1404 MCD_BALD_sampling_20epoch
1405 5935it [01:52, 222.68it/s]MCD_BALD_sampling_20epoch
1406 MCD_BALD_sampling_20epoch
1407 MCD_BALD_sampling_20epoch
1408 MCD_BALD_sampling_20epoch
```

```
1409 6727it [02:07, 281.34it/s]MCD_BALD_sampling_20epoch
1410 MCD_BALD_sampling_20epoch
1411 MCD_BALD_sampling_20epoch
1412 MCD_BALD_sampling_20epoch
1413 7448it [02:22, 226.83it/s]MCD_BALD_sampling_20epoch
1414 MCD_BALD_sampling_20epoch
1415 MCD_BALD_sampling_20epoch
1416 MCD_BALD_sampling_20epoch
1417 8192it [02:36, 251.00it/s]MCD_BALD_sampling_20epoch
1418 MCD_BALD_sampling_20epoch
1419 MCD_BALD_sampling_20epoch
1420 MCD_BALD_sampling_20epoch
1421 8951it [02:52, 242.47it/s]MCD_BALD_sampling_20epoch
1422 MCD_BALD_sampling_20epoch
1423 MCD_BALD_sampling_20epoch
1424 MCD_BALD_sampling_20epoch
1425 9734it [03:06, 246.71it/s]MCD_BALD_sampling_20epoch
1426 MCD_BALD_sampling_20epoch
1427 MCD_BALD_sampling_20epoch
1428 MCD_BALD_sampling_20epoch
1429 10436it [03:21, 196.45it/s]
    MCD_BALD_sampling_20epoch
1430 MCD_BALD_sampling_20epoch
1431 MCD_BALD_sampling_20epoch
1432 MCD_BALD_sampling_20epoch
1433 11227it [03:35, 254.30it/s]
    MCD_BALD_sampling_20epoch
1434 MCD_BALD_sampling_20epoch
1435 MCD_BALD_sampling_20epoch
1436 11250it [03:46, 254.30it/s]
    MCD_BALD_sampling_20epoch
1437 11956it [03:50, 272.96it/s]
    MCD_BALD_sampling_20epoch
1438 MCD_BALD_sampling_20epoch
1439 MCD_BALD_sampling_20epoch
1440 MCD_BALD_sampling_20epoch
1441 12720it [04:05, 272.28it/s]
    MCD_BALD_sampling_20epoch
1442 MCD_BALD_sampling_20epoch
1443 MCD_BALD_sampling_20epoch
1444 12750it [04:16, 272.28it/s]
```

```
1444 MCD_BALD_sampling_20epoch
1445 13434it [04:20, 266.90it/s]
    MCD_BALD_sampling_20epoch
1446 MCD_BALD_sampling_20epoch
1447 MCD_BALD_sampling_20epoch
1448 MCD_BALD_sampling_20epoch
1449 14195it [04:35, 274.51it/s]
    MCD_BALD_sampling_20epoch
1450 MCD_BALD_sampling_20epoch
1451 MCD_BALD_sampling_20epoch
1452 14251it [04:49, 15.81it/s]
    MCD_BALD_sampling_20epoch
1453 14914it [04:50, 238.95it/s]
    MCD_BALD_sampling_20epoch
1454 MCD_BALD_sampling_20epoch
1455 MCD_BALD_sampling_20epoch
1456 MCD_BALD_sampling_20epoch
1457 15697it [05:04, 249.31it/s]
    MCD_BALD_sampling_20epoch
1458 MCD_BALD_sampling_20epoch
1459 MCD_BALD_sampling_20epoch
1460 15751it [05:18, 17.97it/s]
    MCD_BALD_sampling_20epoch
1461 16432it [05:19, 251.67it/s]
    MCD_BALD_sampling_20epoch
1462 MCD_BALD_sampling_20epoch
1463 MCD_BALD_sampling_20epoch
1464 MCD_BALD_sampling_20epoch
1465 17209it [05:33, 250.58it/s]
    MCD_BALD_sampling_20epoch
1466 MCD_BALD_sampling_20epoch
1467 MCD_BALD_sampling_20epoch
1468 17251it [05:47, 16.71it/s]
    MCD_BALD_sampling_20epoch
1469 17942it [05:48, 277.25it/s]
    MCD_BALD_sampling_20epoch
1470 MCD_BALD_sampling_20epoch
1471 MCD_BALD_sampling_20epoch
1472 MCD_BALD_sampling_20epoch
1473 18715it [06:02, 274.56it/s]
    MCD_BALD_sampling_20epoch
```

```
1474 MCD_BALD_sampling_20epoch
1475 MCD_BALD_sampling_20epoch
1476 MCD_BALD_sampling_20epoch
1477 19441it [06:17, 275.61it/s]
    MCD_BALD_sampling_20epoch
1478 MCD_BALD_sampling_20epoch
1479 MCD_BALD_sampling_20epoch
1480 MCD_BALD_sampling_20epoch
1481 20207it [06:32, 273.00it/s]
    MCD_BALD_sampling_20epoch
1482 MCD_BALD_sampling_20epoch
1483 MCD_BALD_sampling_20epoch
1484 MCD_BALD_sampling_20epoch
1485 20984it [06:47, 289.32it/s]
    MCD_BALD_sampling_20epoch
1486 MCD_BALD_sampling_20epoch
1487 MCD_BALD_sampling_20epoch
1488 MCD_BALD_sampling_20epoch
1489 21663it [07:02, 190.37it/s]
    MCD_BALD_sampling_20epoch
1490 MCD_BALD_sampling_20epoch
1491 MCD_BALD_sampling_20epoch
1492 MCD_BALD_sampling_20epoch
1493 22436it [07:16, 250.44it/s]
    MCD_BALD_sampling_20epoch
1494 MCD_BALD_sampling_20epoch
1495 MCD_BALD_sampling_20epoch
1496 MCD_BALD_sampling_20epoch
1497 22500it [07:26, 250.44it/s]
    MCD_BALD_sampling_20epoch
1498 MCD_BALD_sampling_20epoch
1499 global t is : 7
1500 test epoch results {'accuracy': 0.6091503267973856
    , 'f1_weighted': 0.5830492148795422, 'f1_macro': 0.
4981476763121527, 'f1': array([0.85929648, 0.
24561404, 0.48192771, 0.2875817 , 0.62719298,
1501      0.09433962, 0.67673716, 0.6190901 , 0.
5915493 ]), 'precision': array([0.84236453, 0.35
    , 0.58823529, 0.75862069, 0.59090909,
1502      0.29411765, 0.7133758 , 0.5186846 , 0.
66037736]), 'recall': array([0.87692308, 0.18918919
```

```
1502 , 0.40816327, 0.17741935, 0.6682243 ,  
1503 0.05617978, 0.64367816, 0.76769912, 0.  
53571429])}  
1504 val epoch results {'accuracy': 0.6231231231231231  
, 'f1_weighted': 0.592996185480986, 'f1_macro': 0.  
49834085344107293, 'f1': array([0.87155963, 0.  
19047619, 0.58536585, 0.27027027, 0.67326733,  
1505 0.09090909, 0.6 , 0.63179074, 0.  
57142857]), 'precision': array([0.87155963, 0.4  
, 0.6 , 0.55555556, 0.65384615,  
1506 0.5 , 0.66101695, 0.5130719 , 0.  
73170732]), 'recall': array([0.87155963, 0.125  
, 0.57142857, 0.17857143, 0.69387755,  
1507 0.05 , 0.54929577, 0.82198953, 0.46875  
])}  
1508 22500it [07:32, 49.76it/s]  
1509 mc dropout new embedding 7741  
1510 [tensor([[0.1872, 0.0771, 0.0832, 0.1522, 0.0771, 0.  
.0973, 0.1030, 0.0882, 0.1347]]), tensor([[0.1871,  
0.0807, 0.0875, 0.1481, 0.0736, 0.0916, 0.1028, 0.  
0837, 0.1448]]), tensor([[0.1316, 0.0909, 0.0945, 0.  
.1514, 0.0773, 0.1119, 0.1109, 0.0982, 0.1333]]),  
tensor([[0.2001, 0.0862, 0.0949, 0.1394, 0.0737, 0.  
.0898, 0.0893, 0.0841, 0.1427]]), tensor([[0.1916, 0.  
.0793, 0.0867, 0.1503, 0.0755, 0.0995, 0.1010, 0.  
.0881, 0.1279]]), tensor([[0.1771, 0.1040, 0.1064, 0.  
.1226, 0.0885, 0.0896, 0.0939, 0.0939, 0.1239]]),  
tensor([[0.1925, 0.0955, 0.0914, 0.1473, 0.0903, 0.  
.0854, 0.0941, 0.0923, 0.1114]]), tensor([[0.1963, 0.  
.0953, 0.0905, 0.1474, 0.0881, 0.0904, 0.0879, 0.  
.0940, 0.1102]]), tensor([[0.1744, 0.0834, 0.0913, 0.  
.1549, 0.0767, 0.0969, 0.0991, 0.0943, 0.1292]]),  
tensor([[0.1523, 0.0909, 0.0917, 0.1523, 0.0764, 0.  
.1018, 0.1028, 0.0992, 0.1326]]), tensor([[0.1558, 0.  
.0827, 0.0806, 0.1627, 0.0782, 0.1046, 0.0958, 0.  
.0994, 0.1402]]), tensor([[0.1888, 0.0816, 0.0918, 0.  
.1500, 0.0744, 0.0967, 0.0961, 0.0882, 0.1324]]),  
tensor([[0.1824, 0.1023, 0.1062, 0.1388, 0.0870, 0.  
.0904, 0.0901, 0.0957, 0.1072]]), tensor([[0.1707, 0.  
.0879, 0.0958, 0.1420, 0.0720, 0.1061, 0.1040, 0.  
.0970, 0.1244]]), tensor([[0.1924, 0.0800, 0.0841, 0.
```

```

1510 .1515, 0.0744, 0.0946, 0.0990, 0.0897, 0.1344]]),
    tensor([[0.1620, 0.0786, 0.0801, 0.1582, 0.0796, 0.
1047, 0.1003, 0.0973, 0.1391]]), tensor([[0.1703, 0
.0827, 0.0866, 0.1469, 0.0816, 0.1051, 0.1059, 0.
0889, 0.1319]]), tensor([[0.2168, 0.0875, 0.0827, 0
.1319, 0.0828, 0.0874, 0.0898, 0.0971, 0.1239]]),
    tensor([[0.1757, 0.0848, 0.0810, 0.1347, 0.0777, 0.
0950, 0.1041, 0.0935, 0.1536]]), tensor([[0.1592, 0
.0840, 0.0775, 0.1535, 0.0802, 0.0977, 0.1078, 0.
0935, 0.1467]]), tensor([[0.1332, 0.0839, 0.0804, 0
.1402, 0.0830, 0.1148, 0.1070, 0.1117, 0.1459]]),
    tensor([[0.1805, 0.0784, 0.0922, 0.1461, 0.0805, 0.
0953, 0.1027, 0.0840, 0.1402]]), tensor([[0.1715, 0
.0803, 0.0892, 0.1486, 0.0750, 0.1115, 0.1034, 0.
0865, 0.1340]]), tensor([[0.1679, 0.0843, 0.0808, 0
.1606, 0.0758, 0.0977, 0.1004, 0.0973, 0.1353]]),
    tensor([[0.1959, 0.0797, 0.0805, 0.1363, 0.0785, 0.
0919, 0.1054, 0.0927, 0.1390]]), tensor([[0.1956, 0
.0795, 0.0848, 0.1461, 0.0747, 0.0941, 0.0989, 0.
0882, 0.1381]]), tensor([[0.1785, 0.0922, 0.0943, 0
.1345, 0.0903, 0.1021, 0.1035, 0.0787, 0.1261]]),
    tensor([[0.1944, 0.1009, 0.1087, 0.1361, 0.0955, 0.
0858, 0.0801, 0.0881, 0.1105]]), tensor([[0.1935, 0
.1099, 0.1076, 0.1330, 0.0828, 0.0866, 0.0881, 0.
0915, 0.1068]]), tensor([[0.1747, 0.0865, 0.0988, 0
.1460, 0.0792, 0.0926, 0.0960, 0.0868, 0.1393]]),
    tensor([[0.1890, 0.0954, 0.0879, 0.1405, 0.0863, 0.
0958, 0.0987, 0.0945, 0.1120]]), tensor([[0.1756, 0
.0987, 0.1096, 0.1334, 0.0861, 0.0971, 0.0919, 0.
0993, 0.1082]]), tensor([[0.1957, 0.0763, 0.0775, 0
.1344, 0.0769, 0.1004, 0.1109, 0.0920, 0.1358]]),
    tensor([[0.1778, 0.0869, 0.0853, 0.1534, 0.0765, 0.
0990, 0.1071, 0.0889, 0.1253]]), tensor([[0.1802, 0
.0860, 0.0866, 0.1429, 0.0874, 0.1005, 0.1120, 0.
0840, 0.1203]]), tensor([[0.1556, 0.0788, 0.0753, 0
.1447, 0.0823, 0.1050, 0.1090, 0.0932, 0.1562]]),
    tensor([[0.1893, 0.0824, 0.0846, 0.1447, 0.0782, 0.
0941, 0.0981, 0.0895, 0.1391]]), tensor([[0.1281, 0
.1027, 0.0947, 0.1521, 0.0837, 0.1120, 0.1136, 0.
0973, 0.1157]]), tensor([[0.1507, 0.0819, 0.0785, 0
.1635, 0.0774, 0.1139, 0.1046, 0.0997, 0.1298]]),

```

```

1510 tensor([[0.1605, 0.0917, 0.0976, 0.1395, 0.0762, 0.
    1070, 0.1108, 0.0943, 0.1224]]), tensor([[0.1661, 0
    .0879, 0.0941, 0.1468, 0.0852, 0.0994, 0.1032, 0.
    0880, 0.1294]]), tensor([[0.1439, 0.0805, 0.0802, 0
    .1567, 0.0806, 0.1098, 0.1118, 0.0963, 0.1404]]),
    tensor([[0.1694, 0.0868, 0.0995, 0.1426, 0.0760, 0.
    1055, 0.1112, 0.0851, 0.1239]]), tensor([[0.1356, 0
    .0957, 0.0938, 0.1501, 0.0824, 0.1047, 0.1102, 0.
    1022, 0.1254]]), tensor([[0.1863, 0.0801, 0.0853, 0
    .1510, 0.0770, 0.0935, 0.0985, 0.0917, 0.1367]]),
    tensor([[0.1756, 0.0798, 0.0897, 0.1540, 0.0763, 0.
    0951, 0.1010, 0.0949, 0.1335]]), tensor([[0.1816, 0
    .0795, 0.0865, 0.1470, 0.0805, 0.0994, 0.1068, 0.
    0831, 0.1356]]), tensor([[0.1726, 0.0906, 0.0950, 0
    .1471, 0.0847, 0.0935, 0.1037, 0.0857, 0.1271]]),
    tensor([[0.1561, 0.0831, 0.0829, 0.1609, 0.0798, 0.
    0973, 0.0968, 0.1005, 0.1426]]), tensor([[0.1621, 0
    .0882, 0.0968, 0.1460, 0.0698, 0.1072, 0.1132, 0.
    0928, 0.1240]]]
1511 [858, 543, 1861, 4831, 6881, 1642, 669, 7403, 6957
    , 31, 7152, 6, 4458, 7283, 5460, 5622, 6916, 6589,
    3150, 5758, 2794, 1230, 821, 442, 5060, 125, 2934,
    270, 5220, 991, 5138, 1343, 5993, 3166, 5323, 6899
    , 5436, 1521, 1434, 32, 7402, 3676, 6385, 1541, 550
    , 6481, 3644, 7013, 1542, 5769, 2338, 5775, 2899,
    2051, 3496, 5517, 4324, 5705, 3060, 985, 5677, 7652
    , 7612, 313, 6217, 2921, 4568, 1253, 6052, 246,
    5303, 2321, 3526, 7131, 6891, 7667, 6221, 3319,
    3587, 293, 7553, 2413, 1215, 6328, 3184, 4904, 1133
    , 3989, 1334, 4363, 5807, 6541, 4023, 5577, 1407,
    7375, 5929, 3580, 3834, 3256, 1180, 4402, 5417,
    6498, 3765, 6533, 3421, 3946, 3945, 2653, 7541,
    2689, 540, 2853, 48, 7687, 6843, 5788, 4537, 4742,
    3803, 7483, 4562, 1052, 2034, 4392, 5635, 841, 7312
    , 2439, 5730, 3021, 2213, 7548, 4455, 1046, 8, 5613
    , 6229, 2410, 835, 2889, 6715, 6900, 3673, 3376,
    5047, 6956, 6941, 2693, 2266, 908, 3341, 5552, 7068
    , 933, 3643, 1574, 5426, 1492, 4442, 4373, 1832,
    4430, 5757, 4188, 6508, 6442, 6844, 1641, 4082,
    6983, 2022, 5768, 579, 2521, 920, 4864, 4963, 5650
    , 5515, 346, 650, 4202, 1763, 1472, 3875, 6341,

```

1511	5438, 4464, 7699, 6908, 167, 3082, 6592, 491, 3084 , 6920, 3124, 1476, 1638, 166, 512, 3385, 7054, 3820, 7708, 1050, 343, 4947, 4358, 3104, 6123, 6206 , 2155, 2033, 327, 2639, 1213, 2157, 552, 5141, 2515, 3349, 5884, 5984, 1372, 4827, 1105, 4740, 59 , 7138, 725, 3040, 905, 19, 4179, 7018, 4580, 6183 , 325, 3999, 4212, 2422, 4607, 1473, 923, 2970, 1579, 103, 2863, 6470, 2357, 4320, 7679, 5673, 1599 , 2552, 326, 2530, 5033, 4857, 6581, 4215, 5756, 3689, 6526, 4171, 6923, 7505, 4687, 1291, 6681, 2288, 6972, 4943, 3907, 4467, 3855, 7598, 2406, 1306, 1757, 212, 3088, 6452, 1462, 4166, 1528, 1875 , 7457, 3764, 778, 1990, 2367, 972, 2895, 6063, 6801, 4565, 848, 2059, 4526, 1225, 4055, 5985, 1782 , 2440, 6670, 2585, 6379, 4982, 5656, 385, 3909, 4930, 4599, 4386, 3111, 1731, 5591, 685, 6086, 7352 , 3585, 5870, 2956, 4938, 5706, 160, 556, 5744, 3026, 93, 2949, 2799, 1753, 2331, 5124, 3836, 3451 , 7728, 4145, 6707, 2833, 4361, 2513, 607, 2698, 7146, 796, 3465, 3358, 4195, 4752, 1910, 1005, 3009 , 5966, 2553, 2501, 363, 5370, 3271, 4811, 7684, 3101, 1547, 1892, 477, 1379, 1185, 2042, 7583, 1405 , 2433, 647, 3940, 7567, 2131, 1139, 1811, 3638, 3044, 4627, 2068, 5933, 3079, 3926, 3757, 4061, 4602, 6750, 960, 437, 6104, 1287, 2946, 5845, 6238 , 2011, 7545, 6531, 5046, 5680, 4780, 4080, 2159, 1270, 3372, 6665, 6180, 7564, 6066, 3826, 7498, 5434, 580, 7719, 5085, 1151, 7520, 5509, 4142, 6390 , 7062, 7672, 7123, 5454, 254, 1071, 5773, 1865, 6527, 3628, 1446, 3996, 3523, 5079, 1538, 2929, 987 , 6492, 2557, 1880, 407, 428, 3894, 3879, 5614, 3570, 4641, 5300, 6403, 4404, 4669, 1305, 3178, 1839, 6652, 708, 2780, 2378, 5255, 695, 2782, 7410 , 4937, 2724, 3097, 316, 5000, 173, 6568, 7044, 3220, 7316, 7382, 3542, 590, 1426, 989, 7288, 2526 , 5126, 1793, 6855, 3261, 3925, 7321, 943, 7292, 3004, 5028, 529, 1080, 969, 5813, 1279, 3022]
1512	Downloading and preparing dataset csv/default to C :/Users/admin/.cache/huggingface/datasets/csv/ default-becadc97c32709c4/0.0.0/ 6954658bab30a358235fa864b05cf819af0e179325c740e4bc8

```
1512 53bcc7ec513e1...
1513 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1514 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 144.08it/s]
1515 100%|██████████| 1/1 [00:00<00:00, 91.23it/s]
1516 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    becadc97c32709c4/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1517 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1518 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 144.19it/s]
1519 Generating train split: 0 examples [00:00, ?
    examples/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-74320666128ce377/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1520 100%|██████████| 1/1 [00:00<00:00, 71.63it/s]
1521 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    74320666128ce377/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1522 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1523 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-426418e17df29b7e/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1524 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 125.79it/s]
1525 100%|██████████| 1/1 [00:00<00:00, 100.33it/s]
1526 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
```

```
1526 426418e17df29b7e/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1527 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1528 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-de0059d0187d91e5/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1529 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00,  9.47it/s]
1530 100%|██████████| 1/1 [00:00<00:00,  77.19it/s]
1531 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    de0059d0187d91e5/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1532 t is : 8
1533 addlen is: 4000
1534 noexp_df.shape[0] last 7241
1535 unexplained dataset length is:
1536 7241
1537 embedding begin
1538 trian and val dataset length: 122400
1539 MCD_BALD_sampling_20epoch
1540 MCD_BALD_sampling_20epoch
1541 MCD_BALD_sampling_20epoch
1542 MCD_BALD_sampling_20epoch
1543 MCD_BALD_sampling_20epoch
1544 MCD_BALD_sampling_20epoch
1545 MCD_BALD_sampling_20epoch
1546 MCD_BALD_sampling_20epoch
1547 torch.Size([12240, 30])
1548 720.0
1549 torch.Size([7200, 51])
1550 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
1551 Found cached dataset csv (C:/Users/admin/.cache/
```

```
1551 huggingface/datasets/csv/default-13d732cca8165853/0
    .0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1)
1552 100%|██████████| 1/1 [00:00<00:00, 1003.18it/s]
1553 test len 27285
1554 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1555 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 167.25it/s]
1556 Generating train split: 0 examples [00:00, ?
    examples/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-f055a3099ac6d11b/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1557 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    f055a3099ac6d11b/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1558 100%|██████████| 1/1 [00:00<00:00, 62.72it/s]
1559 preprocess_samples begin ...
1560 uncertainty shape: 1530
1561 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
1562 classify begin
1563 7211
1564 0%|          | 0/30 [00:00<?, ?it/s]
    MCD_BALD_sampling_20epoch
1565 MCD_BALD_sampling_20epoch
1566 781it [00:09, 427.47it/s]MCD_BALD_sampling_20epoch
1567 MCD_BALD_sampling_20epoch
1568 MCD_BALD_sampling_20epoch
1569 MCD_BALD_sampling_20epoch
1570 1599it [00:25, 357.96it/s]MCD_BALD_sampling_20epoch
1571 MCD_BALD_sampling_20epoch
1572 MCD_BALD_sampling_20epoch
1573 1620it [00:39, 357.96it/s]MCD_BALD_sampling_20epoch
1574 2408it [00:41, 366.49it/s]MCD_BALD_sampling_20epoch
```

```
1575 MCD_BALD_sampling_20epoch
1576 MCD_BALD_sampling_20epoch
1577 MCD_BALD_sampling_20epoch
1578 3196it [00:57, 317.62it/s]MCD_BALD_sampling_20epoch
1579 MCD_BALD_sampling_20epoch
1580 MCD_BALD_sampling_20epoch
1581 3240it [01:09, 317.62it/s]MCD_BALD_sampling_20epoch
1582 4027it [01:13, 357.92it/s]MCD_BALD_sampling_20epoch
1583 MCD_BALD_sampling_20epoch
1584 MCD_BALD_sampling_20epoch
1585 MCD_BALD_sampling_20epoch
1586 4839it [01:28, 313.27it/s]MCD_BALD_sampling_20epoch
1587 MCD_BALD_sampling_20epoch
1588 MCD_BALD_sampling_20epoch
1589 4861it [01:43, 12.85it/s] MCD_BALD_sampling_20epoch
1590 5653it [01:44, 324.34it/s]MCD_BALD_sampling_20epoch
1591 MCD_BALD_sampling_20epoch
1592 MCD_BALD_sampling_20epoch
1593 MCD_BALD_sampling_20epoch
1594 6403it [01:59, 230.80it/s]MCD_BALD_sampling_20epoch
1595 MCD_BALD_sampling_20epoch
1596 MCD_BALD_sampling_20epoch
1597 MCD_BALD_sampling_20epoch
1598 7223it [02:14, 273.15it/s]MCD_BALD_sampling_20epoch
1599 MCD_BALD_sampling_20epoch
1600 MCD_BALD_sampling_20epoch
1601 7290it [02:29, 273.15it/s]MCD_BALD_sampling_20epoch
1602 8084it [02:31, 392.38it/s]MCD_BALD_sampling_20epoch
1603 MCD_BALD_sampling_20epoch
1604 MCD_BALD_sampling_20epoch
1605 MCD_BALD_sampling_20epoch
1606 8881it [02:47, 309.47it/s]MCD_BALD_sampling_20epoch
1607 MCD_BALD_sampling_20epoch
1608 MCD_BALD_sampling_20epoch
1609 8910it [02:59, 309.47it/s]MCD_BALD_sampling_20epoch
1610 9663it [03:02, 330.39it/s]MCD_BALD_sampling_20epoch
1611 MCD_BALD_sampling_20epoch
1612 MCD_BALD_sampling_20epoch
1613 MCD_BALD_sampling_20epoch
1614 10519it [03:18, 372.21it/s]
    MCD_BALD_sampling_20epoch
```

```
1615 MCD_BALD_sampling_20epoch
1616 10530it [03:29, 372.21it/s]
    MCD_BALD_sampling_20epoch
1617 MCD_BALD_sampling_20epoch
1618 11330it [03:34, 364.12it/s]
    MCD_BALD_sampling_20epoch
1619 MCD_BALD_sampling_20epoch
1620 MCD_BALD_sampling_20epoch
1621 11341it [03:49, 10.37it/s]
    MCD_BALD_sampling_20epoch
1622 12150it [03:50, 375.09it/s]
    MCD_BALD_sampling_20epoch
1623 MCD_BALD_sampling_20epoch
1624 MCD_BALD_sampling_20epoch
1625 MCD_BALD_sampling_20epoch
1626 12948it [04:06, 314.78it/s]
    MCD_BALD_sampling_20epoch
1627 MCD_BALD_sampling_20epoch
1628 MCD_BALD_sampling_20epoch
1629 12960it [04:19, 314.78it/s]
    MCD_BALD_sampling_20epoch
1630 13735it [04:22, 335.13it/s]
    MCD_BALD_sampling_20epoch
1631 MCD_BALD_sampling_20epoch
1632 MCD_BALD_sampling_20epoch
1633 MCD_BALD_sampling_20epoch
1634 14531it [04:38, 276.11it/s]
    MCD_BALD_sampling_20epoch
1635 MCD_BALD_sampling_20epoch
1636 MCD_BALD_sampling_20epoch
1637 14581it [04:52, 15.62it/s]
    MCD_BALD_sampling_20epoch
1638 15373it [04:53, 325.19it/s]
    MCD_BALD_sampling_20epoch
1639 MCD_BALD_sampling_20epoch
1640 MCD_BALD_sampling_20epoch
1641 MCD_BALD_sampling_20epoch
1642 16131it [05:09, 233.46it/s]
    MCD_BALD_sampling_20epoch
1643 MCD_BALD_sampling_20epoch
1644 16200it [05:19, 233.46it/s]
```

1644	MCD_BALD_sampling_20epoch
1645	MCD_BALD_sampling_20epoch
1646	17004it [05:25, 386.59it/s] MCD_BALD_sampling_20epoch
1647	MCD_BALD_sampling_20epoch
1648	MCD_BALD_sampling_20epoch
1649	17011it [05:40, 8.02it/s] MCD_BALD_sampling_20epoch
1650	17817it [05:41, 403.68it/s] MCD_BALD_sampling_20epoch
1651	MCD_BALD_sampling_20epoch
1652	MCD_BALD_sampling_20epoch
1653	MCD_BALD_sampling_20epoch
1654	18618it [05:57, 331.19it/s] MCD_BALD_sampling_20epoch
1655	MCD_BALD_sampling_20epoch
1656	MCD_BALD_sampling_20epoch
1657	18630it [06:09, 331.19it/s] MCD_BALD_sampling_20epoch
1658	19399it [06:13, 350.85it/s] MCD_BALD_sampling_20epoch
1659	MCD_BALD_sampling_20epoch
1660	MCD_BALD_sampling_20epoch
1661	MCD_BALD_sampling_20epoch
1662	20205it [06:29, 359.58it/s] MCD_BALD_sampling_20epoch
1663	MCD_BALD_sampling_20epoch
1664	20250it [06:39, 359.58it/s] MCD_BALD_sampling_20epoch
1665	MCD_BALD_sampling_20epoch
1666	21047it [06:44, 363.49it/s] MCD_BALD_sampling_20epoch
1667	MCD_BALD_sampling_20epoch
1668	MCD_BALD_sampling_20epoch
1669	MCD_BALD_sampling_20epoch
1670	21848it [07:00, 327.72it/s] MCD_BALD_sampling_20epoch
1671	MCD_BALD_sampling_20epoch
1672	MCD_BALD_sampling_20epoch
1673	MCD_BALD_sampling_20epoch
1674	22643it [07:16, 320.71it/s]

```
1674 MCD_BALD_sampling_20epoch
1675 MCD_BALD_sampling_20epoch
1676 MCD_BALD_sampling_20epoch
1677 22680it [07:29, 320.71it/s]
    MCD_BALD_sampling_20epoch
1678 23437it [07:32, 282.54it/s]
    MCD_BALD_sampling_20epoch
1679 MCD_BALD_sampling_20epoch
1680 MCD_BALD_sampling_20epoch
1681 MCD_BALD_sampling_20epoch
1682 24273it [07:48, 340.53it/s]
    MCD_BALD_sampling_20epoch
1683 MCD_BALD_sampling_20epoch
1684 24300it [07:59, 340.53it/s]
    MCD_BALD_sampling_20epoch
1685 MCD_BALD_sampling_20epoch
1686 MCD_BALD_sampling_20epoch
1687 MCD_BALD_sampling_20epoch
1688 global t is : 8
1689 test epoch results {'accuracy': 0.6104575163398693
, 'f1_weighted': 0.5818765557407674, 'f1_macro': 0.
4974432336343368, 'f1': array([0.86868687, 0.
28571429, 0.47619048, 0.2384106 , 0.63043478,
0.0990099 , 0.67878788, 0.6266549 , 0.
57309942]), 'precision': array([0.85572139, 0.
34615385, 0.57142857, 0.66666667, 0.58943089,
0.41666667, 0.71794872, 0.52129222, 0.
67123288]), 'recall': array([0.88205128, 0.24324324
, 0.40816327, 0.14516129, 0.67757009,
0.05617978, 0.64367816, 0.78539823, 0.5
])}
1693 val epoch results {'accuracy': 0.6402777777777777
, 'f1_weighted': 0.6109943044707572, 'f1_macro': 0.
5125776615645408, 'f1': array([0.8974359 , 0.
33333333, 0.38888889, 0.20779221, 0.62184874,
0.20833333, 0.68493151, 0.66407767, 0.
60655738]), 'precision': array([0.88983051, 0.
66666667, 0.53846154, 0.44444444, 0.56923077,
0.83333333, 0.71428571, 0.55882353, 0.
69811321]), 'recall': array([0.90517241, 0.22222222
, 0.30434783, 0.13559322, 0.68518519,
```

```
1696      0.11904762, 0.65789474, 0.81818182, 0.  
      53623188])}  
1697 24300it [08:06, 49.94it/s]  
1698 mc dropout new embedding 7241  
1699 [tensor([[0.1349, 0.0730, 0.0713, 0.1790, 0.0895, 0  
.0949, 0.1235, 0.1206, 0.1134]]), tensor([[0.1256,  
0.0703, 0.0607, 0.1926, 0.0805, 0.0896, 0.1422, 0.  
1149, 0.1237]]), tensor([[0.1583, 0.0755, 0.0679, 0  
.1549, 0.0902, 0.0869, 0.1419, 0.1140, 0.1104]]),  
tensor([[0.1415, 0.0711, 0.0650, 0.1829, 0.0893, 0.  
0850, 0.1412, 0.1112, 0.1128]]), tensor([[0.1327, 0  
.0642, 0.0607, 0.1657, 0.0827, 0.1048, 0.1427, 0.  
1173, 0.1293]]), tensor([[0.1249, 0.0694, 0.0642, 0  
.1787, 0.0871, 0.0854, 0.1555, 0.1124, 0.1223]]),  
tensor([[0.1242, 0.0733, 0.0776, 0.1602, 0.1026, 0.  
0944, 0.1265, 0.1127, 0.1286]]), tensor([[0.1458, 0  
.0663, 0.0667, 0.1787, 0.0875, 0.0853, 0.1330, 0.  
1101, 0.1264]]), tensor([[0.1436, 0.0881, 0.0810, 0  
.1527, 0.0924, 0.0898, 0.1368, 0.1085, 0.1071]]),  
tensor([[0.1509, 0.0651, 0.0646, 0.1776, 0.0916, 0.  
0898, 0.1303, 0.1132, 0.1169]]), tensor([[0.1339, 0  
.0725, 0.0648, 0.1732, 0.1002, 0.1062, 0.1198, 0.  
1187, 0.1107]]), tensor([[0.1332, 0.0777, 0.0687, 0  
.1436, 0.0871, 0.0892, 0.1471, 0.1258, 0.1277]]),  
tensor([[0.1205, 0.0646, 0.0693, 0.1588, 0.1071, 0.  
0958, 0.1324, 0.1186, 0.1329]]), tensor([[0.1314, 0  
.0780, 0.0725, 0.1626, 0.0949, 0.0950, 0.1291, 0.  
1231, 0.1133]]), tensor([[0.1331, 0.0664, 0.0631, 0  
.1645, 0.0947, 0.0847, 0.1403, 0.1191, 0.1341]]),  
tensor([[0.1480, 0.0790, 0.0727, 0.1465, 0.0915, 0.  
0816, 0.1435, 0.1101, 0.1271]]), tensor([[0.1234, 0  
.0664, 0.0696, 0.1817, 0.0878, 0.1058, 0.1293, 0.  
1162, 0.1197]]), tensor([[0.1344, 0.0720, 0.0684, 0  
.1745, 0.0842, 0.0918, 0.1342, 0.1155, 0.1250]]),  
tensor([[0.1645, 0.0690, 0.0664, 0.1564, 0.0931, 0.  
0968, 0.1341, 0.1059, 0.1139]]), tensor([[0.1255, 0  
.0775, 0.0692, 0.1818, 0.0934, 0.1083, 0.1255, 0.  
1106, 0.1082]]), tensor([[0.1224, 0.0667, 0.0632, 0  
.1747, 0.0852, 0.1040, 0.1336, 0.1210, 0.1292]]),  
tensor([[0.1301, 0.0621, 0.0647, 0.1706, 0.0875, 0.  
1071, 0.1318, 0.1261, 0.1201]]), tensor([[0.1267, 0
```

```

1699  .0804, 0.0754, 0.1558, 0.0844, 0.0909, 0.1390, 0.
     1152, 0.1322]], tensor([[0.1493, 0.0793, 0.0820, 0
     .1604, 0.0872, 0.0882, 0.1340, 0.1038, 0.1158]]),
tensor([[0.1397, 0.0735, 0.0719, 0.1610, 0.0946, 0.
     0954, 0.1220, 0.1106, 0.1313]]), tensor([[0.1496, 0
     .0717, 0.0628, 0.1682, 0.0902, 0.0950, 0.1357, 0.
     1083, 0.1184]]), tensor([[0.1475, 0.0684, 0.0700, 0
     .1601, 0.0957, 0.0937, 0.1294, 0.1108, 0.1243]]),
tensor([[0.1445, 0.0756, 0.0662, 0.1560, 0.0896, 0.
     0837, 0.1460, 0.1212, 0.1172]]), tensor([[0.1378, 0
     .0721, 0.0671, 0.1891, 0.0821, 0.0899, 0.1303, 0.
     1112, 0.1204]]), tensor([[0.1493, 0.0685, 0.0672, 0
     .1792, 0.0883, 0.0895, 0.1303, 0.1075, 0.1201]]),
tensor([[0.1569, 0.0659, 0.0660, 0.1638, 0.0884, 0.
     0853, 0.1296, 0.1184, 0.1257]]), tensor([[0.1568, 0
     .0696, 0.0686, 0.1754, 0.0871, 0.0873, 0.1344, 0.
     1112, 0.1098]]), tensor([[0.1301, 0.0715, 0.0686, 0
     .1824, 0.0846, 0.0937, 0.1380, 0.1156, 0.1156]]),
tensor([[0.1428, 0.0770, 0.0698, 0.1660, 0.0919, 0.
     0951, 0.1367, 0.1141, 0.1066]]), tensor([[0.1279, 0
     .0688, 0.0604, 0.1815, 0.0855, 0.0915, 0.1449, 0.
     1152, 0.1243]]), tensor([[0.1412, 0.0780, 0.0753, 0
     .1618, 0.0931, 0.0847, 0.1528, 0.1048, 0.1083]]),
tensor([[0.1320, 0.0640, 0.0631, 0.1776, 0.0912, 0.
     0835, 0.1513, 0.1142, 0.1232]]), tensor([[0.1239, 0
     .0705, 0.0687, 0.1893, 0.0817, 0.1035, 0.1325, 0.
     1159, 0.1139]]), tensor([[0.1435, 0.0731, 0.0717, 0
     .1704, 0.0932, 0.0932, 0.1291, 0.1114, 0.1145]]),
tensor([[0.1419, 0.0782, 0.0711, 0.1497, 0.0887, 0.
     0874, 0.1404, 0.1190, 0.1235]]), tensor([[0.1468, 0
     .0845, 0.0839, 0.1513, 0.0804, 0.0958, 0.1268, 0.
     1133, 0.1173]]), tensor([[0.1415, 0.0704, 0.0612, 0
     .1737, 0.0950, 0.0855, 0.1321, 0.1225, 0.1180]]),
tensor([[0.1455, 0.0696, 0.0628, 0.1758, 0.0907, 0.
     0983, 0.1268, 0.1097, 0.1207]]), tensor([[0.1425, 0
     .0776, 0.0719, 0.1767, 0.0848, 0.0824, 0.1377, 0.
     1155, 0.1109]]), tensor([[0.1184, 0.0742, 0.0792, 0
     .1643, 0.0975, 0.0913, 0.1252, 0.1184, 0.1315]]),
tensor([[0.1254, 0.0720, 0.0707, 0.1737, 0.0812, 0.
     1109, 0.1144, 0.1233, 0.1284]]), tensor([[0.1309, 0
     .0834, 0.0753, 0.1464, 0.0945, 0.0914, 0.1410, 0.

```

```

1699 1165, 0.1207]])), tensor([[0.1315, 0.0640, 0.0616, 0
    .1700, 0.0910, 0.1080, 0.1265, 0.1213, 0.1262]]),
    tensor([[0.1387, 0.0688, 0.0678, 0.1699, 0.1025, 0.
    0930, 0.1320, 0.1096, 0.1176]])), tensor([[0.1222, 0
    .0692, 0.0648, 0.1857, 0.0836, 0.0965, 0.1307, 0.
    1252, 0.1221]]])
1700 [6435, 1292, 7087, 3324, 6946, 4362, 3562, 3192,
    5881, 6094, 4276, 776, 3779, 6567, 919, 6267, 6959
    , 5098, 2474, 3364, 1889, 2986, 6856, 3533, 4993,
    3711, 6724, 5042, 6487, 4727, 950, 2675, 1767, 5489
    , 1787, 7237, 3417, 3803, 2265, 2076, 4693, 5713,
    1574, 1975, 3910, 242, 4379, 2756, 2290, 2651, 4218
    , 4635, 3401, 914, 109, 5863, 3983, 4412, 5135,
    5876, 954, 3759, 4517, 5875, 5654, 4991, 4002, 5325
    , 3473, 557, 3662, 1376, 3638, 4526, 6886, 3096,
    494, 2598, 6173, 6243, 104, 1131, 1659, 5130, 631,
    3797, 2003, 1398, 4404, 3624, 1636, 1419, 156, 5803
    , 4710, 232, 2829, 4009, 4472, 1134, 3614, 2891,
    4097, 793, 1729, 1331, 3373, 3687, 3149, 373, 3905
    , 4233, 5019, 1510, 955, 1525, 1558, 687, 1480, 562
    , 3294, 5987, 6762, 4587, 2240, 998, 87, 4734, 800
    , 1741, 3113, 1536, 3869, 5517, 2770, 3384, 4481,
    596, 7007, 5030, 7215, 5903, 4735, 7151, 2904, 4199
    , 1819, 3059, 1802, 5163, 2478, 4988, 4336, 3273,
    3392, 6201, 3938, 4544, 6746, 392, 397, 2055, 3531
    , 1617, 4242, 7138, 1857, 6871, 6172, 4443, 4375,
    3089, 757, 2710, 2784, 1603, 3573, 806, 3654, 3207
    , 1702, 599, 4720, 2015, 4474, 4389, 4837, 683,
    6169, 5663, 1720, 2741, 5128, 6039, 1661, 773, 6453
    , 4008, 5263, 5157, 1676, 4344, 5964, 4749, 782,
    1085, 2860, 2657, 4252, 2604, 1736, 938, 1047, 4331
    , 1488, 6342, 2943, 1996, 3347, 5311, 125, 4953,
    1834, 4178, 1937, 5819, 5798, 3764, 4851, 6426,
    2664, 6158, 2977, 2364, 2353, 6093, 304, 4348, 2451
    , 2931, 6157, 3956, 6475, 3770, 7043, 5669, 2522,
    49, 4819, 402, 1015, 2180, 2063, 3013, 3633, 1249,
    4054, 3979, 2309, 512, 3863, 7224, 1055, 6525, 4607
    , 1840, 5504, 6087, 3244, 5211, 6838, 3049, 4656,
    160, 3655, 7103, 6889, 3069, 6503, 2962, 3466, 1172
    , 2056, 2412, 6706, 6865, 6410, 3266, 2042, 3066,
    1250, 3033, 7130, 4170, 3523, 4703, 1668, 2867, 209

```

```
1700 , 5938, 1999, 6634, 3077, 762, 3363, 7171, 6459,  
4115, 4225, 6164, 39, 5032, 3216, 6960, 1274, 4005  
, 597, 6491, 6015, 1152, 348, 3584, 869, 5907, 5466  
, 6618, 4378, 2526, 2089, 6792, 2097, 4631, 5823,  
6257, 5172, 4781, 230, 2863, 2459, 5721, 521, 179,  
1127, 2965, 2358, 2311, 3901, 2847, 6135, 293, 820  
, 509, 3945, 5816, 296, 1237, 3368, 4326, 7097,  
4658, 6985, 4700, 3813, 1501, 751, 5565, 5425, 6278  
, 4894, 2351, 7128, 4360, 4921, 2098, 41, 4029,  
5828, 5788, 5793, 4870, 6991, 47, 5057, 5208, 587,  
114, 6236, 2127, 6397, 3756, 1969, 5443, 1422, 6723  
, 7006, 3840, 6610, 688, 1826, 7088, 4117, 2788,  
5957, 6400, 4692, 765, 4946, 4510, 3350, 5660, 2684  
, 165, 5482, 4462, 1482, 5705, 6609, 6635, 5641,  
3558, 962, 1775, 5963, 6048, 5084, 4712, 4838, 536  
, 4460, 6549, 5469, 6644, 13, 6604, 10, 6341, 7177  
, 4826, 1063, 4491, 3954, 666, 5371, 5381, 2419,  
5226, 3429, 3291, 1799, 2253, 1511, 1554, 5328,  
2283, 7045, 1360, 4411, 1825, 6548, 45, 3092, 4455  
, 2157, 6189, 4780, 5962, 4179, 5753, 602, 770, 507  
, 2751, 6154, 3749, 725, 6356, 5543, 2679, 3715,  
1768, 5076, 1990, 6260, 4398, 2461, 6232, 594, 1922  
, 438, 767, 2367, 1401, 5537, 5276, 6703, 6920, 164  
, 2979, 3915, 613]  
1701 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
1702 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 124.43it/s]  
1703 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-091639e046ac0b8c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1704 100%|██████████| 1/1 [00:00<00:00, 72.00it/s]  
1705 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
091639e046ac0b8c/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.
```

```
1706 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1707 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 143.32it/s]
1708 Generating train split: 0 examples [00:00, ?
    examples/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-aa5062a08bc35bd9/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1709 100%|██████████| 1/1 [00:00<00:00, 52.80it/s]
1710 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    aa5062a08bc35bd9/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1711 Downloading data files: 100%|██████████| 1/1 [00:00
    <00:00, 1001.98it/s]
1712 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-6a9e9ec5b4da1617/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1713 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 125.44it/s]
1714 100%|██████████| 1/1 [00:00<00:00, 105.91it/s]
1715 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    6a9e9ec5b4da1617/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1716 Downloading data files: 100%|██████████| 1/1 [00:00
    <00:00, 1862.48it/s]
1717 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 118.72it/s]
1718 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-1ffe0a8dcfcbf27b/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
```

```
1718 53bcc7ec513e1...
1719 100%|██████████| 1/1 [00:00<00:00, 71.60it/s]
1720 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    1ffe0a8dcbbf27b/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1721 t is : 9
1722 addlen is: 4500
1723 noexp_df.shape[0] last 6741
1724 unexplained dataset length is:
1725 6741
1726 embedding begin
1727 trian and val dataset length: 137700
1728 MCD_BALD_sampling_20epoch
1729 MCD_BALD_sampling_20epoch
1730 MCD_BALD_sampling_20epoch
1731 MCD_BALD_sampling_20epoch
1732 MCD_BALD_sampling_20epoch
1733 MCD_BALD_sampling_20epoch
1734 MCD_BALD_sampling_20epoch
1735 MCD_BALD_sampling_20epoch
1736 torch.Size([13770, 30])
1737 765.0
1738 torch.Size([7650, 54])
1739 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
1740 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-13d732cca8165853/0
    .0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1)
1741 100%|██████████| 1/1 [00:00<00:00, 500.22it/s]
1742 test len 28890
1743 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-156e5de95db95e13/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1744 Downloading data files: 100%|██████████| 1/1 [00:00
```

```
1744 <00:00, 1974.72it/s]
1745 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 143.77it/s]
1746 0% | 0/1 [00:00<?, ?it/s]Dataset csv
    downloaded and prepared to C:/Users/admin/.cache/
    huggingface/datasets/csv/default-156e5de95db95e13/0
    .0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1747 100%|██████████| 1/1 [00:00<00:00, 35.83it/s]
1748 preprocess_samples begin ...
1749 uncertainty shape: 1530
1750 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
1751 classify begin
1752 7711
1753 0% | 0/30 [00:00<?, ?it/s]
    MCD_BALD_sampling_20epoch
1754 MCD_BALD_sampling_20epoch
1755 811it [00:10, 409.91it/s]MCD_BALD_sampling_20epoch
1756 MCD_BALD_sampling_20epoch
1757 861it [00:20, 409.91it/s]MCD_BALD_sampling_20epoch
1758 MCD_BALD_sampling_20epoch
1759 1677it [00:26, 338.44it/s]MCD_BALD_sampling_20epoch
1760 MCD_BALD_sampling_20epoch
1761 MCD_BALD_sampling_20epoch
1762 1722it [00:40, 338.44it/s]MCD_BALD_sampling_20epoch
1763 2568it [00:42, 386.76it/s]MCD_BALD_sampling_20epoch
1764 MCD_BALD_sampling_20epoch
1765 MCD_BALD_sampling_20epoch
1766 MCD_BALD_sampling_20epoch
1767 3403it [00:57, 335.50it/s]MCD_BALD_sampling_20epoch
1768 MCD_BALD_sampling_20epoch
1769 MCD_BALD_sampling_20epoch
1770 3445it [01:12, 12.98it/s] MCD_BALD_sampling_20epoch
1771 4304it [01:13, 392.49it/s]MCD_BALD_sampling_20epoch
1772 MCD_BALD_sampling_20epoch
1773 MCD_BALD_sampling_20epoch
1774 MCD_BALD_sampling_20epoch
1775 5143it [01:28, 297.19it/s]MCD_BALD_sampling_20epoch
```

1776	MCD_BALD_sampling_20epoch
1777	MCD_BALD_sampling_20epoch
1778	5167it [01:42, 15.14it/s] MCD_BALD_sampling_20epoch
1779	5970it [01:43, 364.01it/s] MCD_BALD_sampling_20epoch
1780	MCD_BALD_sampling_20epoch
1781	MCD_BALD_sampling_20epoch
1782	MCD_BALD_sampling_20epoch
1783	6814it [01:58, 312.82it/s] MCD_BALD_sampling_20epoch
1784	MCD_BALD_sampling_20epoch
1785	MCD_BALD_sampling_20epoch
1786	6889it [02:12, 19.08it/s] MCD_BALD_sampling_20epoch
1787	7713it [02:13, 358.58it/s] MCD_BALD_sampling_20epoch
1788	MCD_BALD_sampling_20epoch
1789	MCD_BALD_sampling_20epoch
1790	MCD_BALD_sampling_20epoch
1791	8531it [02:28, 304.55it/s] MCD_BALD_sampling_20epoch
1792	MCD_BALD_sampling_20epoch
1793	MCD_BALD_sampling_20epoch
1794	8610it [02:40, 304.55it/s] MCD_BALD_sampling_20epoch
1795	9442it [02:44, 377.77it/s] MCD_BALD_sampling_20epoch
1796	MCD_BALD_sampling_20epoch
1797	MCD_BALD_sampling_20epoch
1798	MCD_BALD_sampling_20epoch
1799	10332it [02:59, 383.19it/s] MCD_BALD_sampling_20epoch
1800	MCD_BALD_sampling_20epoch
1801	MCD_BALD_sampling_20epoch
1802	10332it [03:10, 383.19it/s] MCD_BALD_sampling_20epoch
1803	11147it [03:15, 379.75it/s] MCD_BALD_sampling_20epoch
1804	MCD_BALD_sampling_20epoch
1805	MCD_BALD_sampling_20epoch
1806	MCD_BALD_sampling_20epoch
1807	12039it [03:30, 387.34it/s] MCD_BALD_sampling_20epoch
1808	MCD_BALD_sampling_20epoch
1809	12054it [03:41, 387.34it/s] MCD_BALD_sampling_20epoch
1810	MCD_BALD_sampling_20epoch
1811	12887it [03:46, 384.92it/s]

1811	MCD_BALD_sampling_20epoch
1812	MCD_BALD_sampling_20epoch
1813	MCD_BALD_sampling_20epoch
1814	MCD_BALD_sampling_20epoch
1815	13756it [04:02, 383.89it/s] MCD_BALD_sampling_20epoch
1816	MCD_BALD_sampling_20epoch
1817	MCD_BALD_sampling_20epoch
1818	MCD_BALD_sampling_20epoch
1819	14562it [04:17, 294.41it/s] MCD_BALD_sampling_20epoch
1820	MCD_BALD_sampling_20epoch
1821	MCD_BALD_sampling_20epoch
1822	14638it [04:31, 18.42it/s] MCD_BALD_sampling_20epoch
1823	15463it [04:32, 382.57it/s] MCD_BALD_sampling_20epoch
1824	MCD_BALD_sampling_20epoch
1825	MCD_BALD_sampling_20epoch
1826	MCD_BALD_sampling_20epoch
1827	16312it [04:47, 295.25it/s] MCD_BALD_sampling_20epoch
1828	MCD_BALD_sampling_20epoch
1829	MCD_BALD_sampling_20epoch
1830	16360it [05:01, 16.76it/s] MCD_BALD_sampling_20epoch
1831	17178it [05:02, 372.55it/s] MCD_BALD_sampling_20epoch
1832	MCD_BALD_sampling_20epoch
1833	MCD_BALD_sampling_20epoch
1834	MCD_BALD_sampling_20epoch
1835	18014it [05:17, 305.94it/s] MCD_BALD_sampling_20epoch
1836	MCD_BALD_sampling_20epoch
1837	MCD_BALD_sampling_20epoch
1838	MCD_BALD_sampling_20epoch
1839	18924it [05:32, 377.60it/s] MCD_BALD_sampling_20epoch
1840	MCD_BALD_sampling_20epoch
1841	MCD_BALD_sampling_20epoch
1842	MCD_BALD_sampling_20epoch

1843	19792it [05:47, 335.76it/s]
	MCD_BALD_sampling_20epoch
1844	MCD_BALD_sampling_20epoch
1845	MCD_BALD_sampling_20epoch
1846	19804it [06:02, 11.56it/s]
	MCD_BALD_sampling_20epoch
1847	20663it [06:03, 392.15it/s]
	MCD_BALD_sampling_20epoch
1848	MCD_BALD_sampling_20epoch
1849	MCD_BALD_sampling_20epoch
1850	MCD_BALD_sampling_20epoch
1851	21490it [06:18, 322.54it/s]
	MCD_BALD_sampling_20epoch
1852	MCD_BALD_sampling_20epoch
1853	MCD_BALD_sampling_20epoch
1854	21525it [06:31, 322.54it/s]
	MCD_BALD_sampling_20epoch
1855	22355it [06:34, 340.78it/s]
	MCD_BALD_sampling_20epoch
1856	MCD_BALD_sampling_20epoch
1857	MCD_BALD_sampling_20epoch
1858	MCD_BALD_sampling_20epoch
1859	23208it [06:49, 357.29it/s]
	MCD_BALD_sampling_20epoch
1860	MCD_BALD_sampling_20epoch
1861	MCD_BALD_sampling_20epoch
1862	23248it [07:04, 13.64it/s]
	MCD_BALD_sampling_20epoch
1863	24080it [07:05, 364.77it/s]
	MCD_BALD_sampling_20epoch
1864	MCD_BALD_sampling_20epoch
1865	MCD_BALD_sampling_20epoch
1866	MCD_BALD_sampling_20epoch
1867	24938it [07:20, 287.25it/s]
	MCD_BALD_sampling_20epoch
1868	MCD_BALD_sampling_20epoch
1869	MCD_BALD_sampling_20epoch
1870	24969it [07:31, 287.25it/s]
	MCD_BALD_sampling_20epoch
1871	25807it [07:36, 436.31it/s]
	MCD_BALD_sampling_20epoch

```

1872 MCD_BALD_sampling_20epoch
1873 MCD_BALD_sampling_20epoch
1874 MCD_BALD_sampling_20epoch
1875 25830it [07:51, 436.31it/s]
    MCD_BALD_sampling_20epoch
1876 MCD_BALD_sampling_20epoch
1877 global t is : 9
1878 test epoch results {'accuracy': 0.6215686274509804
    , 'f1_weighted': 0.6010745729668712, 'f1_macro': 0.
    5329448662595575, 'f1': array([0.8622449 , 0.
    34920635, 0.58947368, 0.35502959, 0.65075922,
1879           0.10810811, 0.6626506 , 0.63500931, 0.
    58402204]), 'precision': array([0.85786802, 0.
    42307692, 0.60869565, 0.66666667, 0.60728745,
1880           0.27272727, 0.69620253, 0.54823151, 0.
    63473054]), 'recall': array([0.86666667, 0.2972973
    , 0.57142857, 0.24193548, 0.70093458,
1881           0.06741573, 0.63218391, 0.75442478, 0.
    54081633])}
1882 val epoch results {'accuracy': 0.6274509803921569
    , 'f1_weighted': 0.6068945522249438, 'f1_macro': 0.
    52860452547026, 'f1': array([0.90677966, 0.32
    , 0.55      , 0.35955056, 0.61666667,
1883           0.18181818, 0.59722222, 0.63716814, 0.
    58823529]), 'precision': array([0.90677966, 0.
    66666667, 0.73333333, 0.61538462, 0.58730159,
1884           0.45454545, 0.68253968, 0.53097345, 0.
    6557377 ], 'recall': array([0.90677966, 0.21052632
    , 0.44      , 0.25396825, 0.64912281,
1885           0.11363636, 0.5308642 , 0.79646018, 0.
    53333333])}
1886 25830it [07:54, 54.42it/s]
1887 mc dropout new embedding 6741
1888 [tensor([[0.0846, 0.0910, 0.0794, 0.1475, 0.0986, 0
    .0944, 0.1254, 0.1300, 0.1491]]), tensor([[0.1071,
    0.0759, 0.0754, 0.1496, 0.0996, 0.1134, 0.1125, 0.
    1312, 0.1352]]), tensor([[0.0867, 0.0808, 0.0771, 0
    .1621, 0.1002, 0.1069, 0.1105, 0.1289, 0.1468]]),
    tensor([[0.1044, 0.0860, 0.0798, 0.1480, 0.1032, 0.
    1073, 0.1095, 0.1216, 0.1403]]), tensor([[0.1137, 0
    .0910, 0.0891, 0.1523, 0.0998, 0.1035, 0.1153, 0.
```

```

1888 1154, 0.1198]])), tensor([[0.0984, 0.0842, 0.0724, 0
.1572, 0.0996, 0.1014, 0.1262, 0.1340, 0.1268]])),
tensor([[0.1146, 0.0903, 0.0821, 0.1473, 0.0927, 0.
1043, 0.1059, 0.1313, 0.1316]])), tensor([[0.0969, 0
.0953, 0.0912, 0.1520, 0.1026, 0.0937, 0.1114, 0.
1201, 0.1368]])), tensor([[0.0981, 0.0777, 0.0690, 0
.1691, 0.0948, 0.1041, 0.1095, 0.1361, 0.1417]])),
tensor([[0.1134, 0.0767, 0.0800, 0.1473, 0.1072, 0.
1092, 0.1062, 0.1304, 0.1295]])), tensor([[0.0890, 0
.0808, 0.0756, 0.1578, 0.0980, 0.1066, 0.1273, 0.
1262, 0.1386]])), tensor([[0.0975, 0.0900, 0.0849, 0
.1679, 0.0964, 0.0941, 0.1091, 0.1323, 0.1279]])),
tensor([[0.0946, 0.0829, 0.0735, 0.1615, 0.0900, 0.
1147, 0.1143, 0.1318, 0.1367]])), tensor([[0.0854, 0
.0800, 0.0820, 0.1714, 0.0995, 0.1134, 0.1150, 0.
1215, 0.1318]])), tensor([[0.1019, 0.0917, 0.0781, 0
.1516, 0.1009, 0.1026, 0.1130, 0.1135, 0.1466]])),
tensor([[0.0775, 0.0837, 0.0743, 0.1484, 0.1022, 0.
1153, 0.1182, 0.1288, 0.1517]])), tensor([[0.1037, 0
.0860, 0.0778, 0.1612, 0.0962, 0.1007, 0.1203, 0.
1188, 0.1353]])), tensor([[0.0859, 0.0848, 0.0753, 0
.1450, 0.0991, 0.1072, 0.1269, 0.1351, 0.1407]])),
tensor([[0.1184, 0.0844, 0.0841, 0.1484, 0.1005, 0.
0963, 0.1072, 0.1282, 0.1324]])), tensor([[0.0845, 0
.0868, 0.0906, 0.1615, 0.0991, 0.1098, 0.1090, 0.
1282, 0.1304]])), tensor([[0.0969, 0.0795, 0.0773, 0
.1437, 0.1007, 0.0995, 0.1272, 0.1315, 0.1435]])),
tensor([[0.0980, 0.0872, 0.0876, 0.1574, 0.1129, 0.
0999, 0.1008, 0.1271, 0.1291]])), tensor([[0.0982, 0
.0881, 0.0700, 0.1458, 0.0885, 0.0987, 0.1375, 0.
1179, 0.1553]])), tensor([[0.1047, 0.0807, 0.0739, 0
.1585, 0.0999, 0.1062, 0.1116, 0.1223, 0.1423]])),
tensor([[0.0883, 0.0842, 0.0776, 0.1655, 0.0874, 0.
1133, 0.1115, 0.1325, 0.1396]])), tensor([[0.0962, 0
.0872, 0.0888, 0.1587, 0.1120, 0.1014, 0.1028, 0.
1347, 0.1183]])), tensor([[0.0910, 0.0875, 0.0804, 0
.1460, 0.0977, 0.1046, 0.1255, 0.1233, 0.1441]])),
tensor([[0.1034, 0.0898, 0.0936, 0.1596, 0.1125, 0.
1033, 0.0987, 0.1294, 0.1098]])), tensor([[0.0808, 0
.0839, 0.0768, 0.1545, 0.0994, 0.1025, 0.1190, 0.
1303, 0.1528]])), tensor([[0.1149, 0.0769, 0.0750, 0
.1572, 0.0996, 0.1014, 0.1262, 0.1340, 0.1268]]))

```

1888	.1345, 0.1046, 0.1115, 0.1201, 0.1152, 0.1473]]), tensor([[0.0974, 0.0791, 0.0742, 0.1596, 0.1001, 0. 1024, 0.1139, 0.1289, 0.1444]]), tensor([[0.0898, 0 .0786, 0.0699, 0.1495, 0.0979, 0.1035, 0.1195, 0. 1388, 0.1524]]), tensor([[0.1190, 0.0823, 0.0765, 0 .1495, 0.0996, 0.1078, 0.1197, 0.1220, 0.1236]]), tensor([[0.1052, 0.0810, 0.0631, 0.1496, 0.0968, 0. 1039, 0.1201, 0.1315, 0.1489]]), tensor([[0.1098, 0 .0774, 0.0751, 0.1438, 0.0960, 0.1020, 0.1111, 0. 1373, 0.1474]]), tensor([[0.1040, 0.0844, 0.0781, 0 .1625, 0.0970, 0.1079, 0.1058, 0.1360, 0.1243]]), tensor([[0.1007, 0.0842, 0.0782, 0.1655, 0.1023, 0. 1038, 0.1081, 0.1295, 0.1277]]), tensor([[0.0994, 0 .0828, 0.0875, 0.1541, 0.1051, 0.1042, 0.1097, 0. 1229, 0.1343]]), tensor([[0.0901, 0.0778, 0.0790, 0 .1743, 0.0987, 0.1014, 0.1049, 0.1311, 0.1425]]), tensor([[0.0966, 0.0842, 0.0704, 0.1552, 0.0937, 0. 1019, 0.1339, 0.1218, 0.1424]]), tensor([[0.1072, 0 .0804, 0.0764, 0.1587, 0.1024, 0.0982, 0.1084, 0. 1311, 0.1371]]), tensor([[0.0864, 0.0880, 0.0806, 0 .1441, 0.1090, 0.0980, 0.1147, 0.1490, 0.1302]]), tensor([[0.1109, 0.0919, 0.0752, 0.1455, 0.0955, 0. 0873, 0.1172, 0.1298, 0.1467]]), tensor([[0.0889, 0 .0825, 0.0784, 0.1709, 0.0908, 0.1074, 0.1155, 0. 1238, 0.1418]]), tensor([[0.0974, 0.0879, 0.0867, 0 .1633, 0.0978, 0.0975, 0.1024, 0.1305, 0.1365]]), tensor([[0.0980, 0.0777, 0.0746, 0.1596, 0.1014, 0. 1026, 0.1095, 0.1327, 0.1438]]), tensor([[0.1189, 0 .0914, 0.0890, 0.1320, 0.1097, 0.0898, 0.1101, 0. 1231, 0.1361]]), tensor([[0.0996, 0.0935, 0.0786, 0 .1520, 0.0938, 0.1006, 0.1316, 0.1132, 0.1371]]), tensor([[0.0888, 0.0778, 0.0756, 0.1658, 0.0955, 0. 1120, 0.1146, 0.1296, 0.1403]]), tensor([[0.1062, 0 .0881, 0.0844, 0.1586, 0.0962, 0.0946, 0.1074, 0. 1419, 0.1227]]])
1889	[902, 939, 6426, 2762, 3552, 5629, 259, 2708, 5633 , 6400, 5761, 5456, 3400, 136, 1811, 4827, 4243, 4596, 3437, 6590, 2713, 5690, 6160, 4288, 2857, 3662, 1873, 3196, 635, 5798, 5892, 1353, 6647, 6116 , 3079, 237, 5505, 3806, 2854, 4819, 5955, 2832, 530, 1391, 398, 2075, 6511, 613, 824, 152, 1706,

1889 5126, 2360, 1872, 3949, 4674, 1052, 1725, 2755, 984
, 921, 3154, 6255, 2294, 4851, 5889, 937, 1669,
1176, 383, 1010, 5455, 5980, 5331, 4610, 179, 1464
, 2122, 1050, 463, 1591, 2545, 143, 4833, 2786,
5349, 3913, 6045, 2616, 4234, 4753, 4794, 5198,
1422, 409, 3903, 117, 4082, 1556, 2520, 1117, 3999
, 2503, 4589, 2887, 5583, 4397, 3249, 6104, 2546,
4163, 5841, 3975, 3530, 2076, 3944, 5773, 3792,
4590, 5335, 6555, 6440, 1701, 3924, 2707, 6537,
6244, 746, 4209, 3206, 5665, 1475, 1077, 4322, 4190
, 4037, 4713, 1169, 1326, 2213, 4106, 1531, 1303,
3104, 4870, 1820, 6220, 6063, 681, 128, 2847, 4459
, 930, 3605, 5010, 1358, 5385, 5744, 1732, 4119,
5512, 330, 933, 1087, 2659, 1834, 4131, 5903, 4598
, 5360, 5189, 2030, 1549, 6688, 2937, 5626, 4261,
4299, 4722, 4609, 877, 6282, 6093, 3297, 449, 1280
, 3873, 3608, 2108, 1458, 263, 5590, 1479, 5334,
2901, 3557, 5973, 6169, 5707, 4267, 60, 4047, 2392
, 1563, 5344, 4144, 1140, 4064, 3409, 893, 2899,
3535, 3471, 1431, 4862, 765, 2737, 4903, 4143, 6617
, 250, 3566, 1967, 6438, 4223, 2578, 4487, 1344,
5057, 4407, 426, 6563, 1616, 3719, 4702, 1121, 6040
, 5417, 204, 3526, 4524, 4265, 775, 899, 4031, 2785
, 3757, 6342, 6221, 2744, 2433, 1675, 6124, 1544,
4554, 5333, 4275, 983, 3611, 3337, 6088, 4721, 2411
, 3288, 4886, 5410, 967, 6019, 4419, 6192, 4551,
4703, 2078, 1159, 4757, 3301, 2370, 3142, 5369, 739
, 854, 4240, 1181, 377, 2098, 1918, 4758, 6099,
2960, 5340, 5589, 5416, 4913, 2385, 2819, 434, 6065
, 1301, 3859, 1670, 440, 2356, 175, 2635, 807, 5839
, 4214, 2508, 5721, 4516, 6028, 2585, 1665, 3902,
1003, 1814, 1654, 557, 3697, 2647, 2306, 1491, 1260
, 4942, 6452, 3732, 1876, 4503, 6408, 5099, 5038,
155, 3226, 3420, 3246, 810, 1236, 6087, 5444, 6679
, 4391, 642, 2087, 2912, 3127, 631, 6216, 2405,
6724, 185, 2780, 4528, 1419, 5838, 1377, 4571, 2516
, 960, 1865, 6569, 5922, 2649, 3851, 5732, 6437,
4138, 4701, 6390, 5253, 4117, 5439, 2238, 3561,
5671, 2020, 5044, 4951, 3978, 1043, 1684, 2434,
3825, 5469, 1270, 544, 438, 2987, 5606, 164, 4475,
4463, 6697, 6528, 3285, 1495, 2710, 5849, 2573,

```
1889 1289, 1894, 5327, 604, 3940, 834, 207, 1273, 496,  
5132, 2366, 6191, 6130, 3447, 3848, 1046, 4994,  
3002, 156, 5971, 3369, 5468, 2839, 4087, 1981, 5491  
, 6226, 6234, 5719, 4032, 6658, 6550, 2003, 222,  
1764, 2073, 2740, 3612, 1953, 580, 5336, 1079, 5640  
, 4182, 1496, 1899, 6611, 1662, 4905, 2472, 2016,  
2156, 6240, 6627, 2563, 4239, 3150, 3309, 5326,  
6097, 2610, 576, 6427, 883, 3579, 5672, 6548, 2210  
, 4381, 5529, 1631, 2054, 2841, 5261, 1256, 891,  
4314, 1802, 3890, 587, 511, 6346, 975, 508, 4818,  
2766, 221, 3001, 5567, 552, 5553, 1040, 3051, 2464  
, 1009, 1114, 6109, 2413, 5308, 3576, 3055, 6208]  
1890 Downloading and preparing dataset csv/default to C  
:/Users/admin/.cache/huggingface/datasets/csv/  
default-e76985bfe5613325/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1891 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1892 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 167.22it/s]  
1893 100%|██████████| 1/1 [00:00<00:00, 111.51it/s]  
1894 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
e76985bfe5613325/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.  
1895 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1896 Downloading and preparing dataset csv/default to C  
:/Users/admin/.cache/huggingface/datasets/csv/  
default-84708f8aba8dca28/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1897 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 167.28it/s]  
1898 100%|██████████| 1/1 [00:00<00:00, 55.94it/s]  
1899 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
84708f8aba8dca28/0.0.0/
```

1899
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.

1900 Downloading data files: 100% [██████████] | 1/1 [00:00
<00:00, 1002.94it/s]

1901 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-ed04c2b7d75f7bb6/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...

1902 Extracting data files: 100% [██████████] | 1/1 [00:00<
00:00, 40.13it/s]

1903 100% [██████████] | 1/1 [00:00<00:00, 71.67it/s]

1904 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
ed04c2b7d75f7bb6/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.

1905 Downloading data files: 100% [██████████] | 1/1 [00:00
<, ?it/s]

1906 Extracting data files: 100% [██████████] | 1/1 [00:00<
00:00, 154.34it/s]

1907 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-a8ad9db825b7db75/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...

1908 100% [██████████] | 1/1 [00:00<00:00, 111.86it/s]

1909 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
a8ad9db825b7db75/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.

1910 t is : 10

1911 addlen is: 5000

1912

1913 Process finished with exit code 0