

```
1 E:\Desktop\...\...\venv\Scripts\python.exe "D:\Bristol course\Data Science Dissertation\ExpBERT lab and thesis\BERT-IE-main\BERT-IE-main\diversity_sampling_whole.py"
2 diversity_sampling_exp_add2
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-b4d5dd46594e2258/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
5 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 2.53it/s]
6 0%|          | 0/1 [00:00<?, ?it/s] Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-b4d5dd46594e2258/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1. Subsequent calls will reuse this data.
7 100%|██████████| 1/1 [00:00<00:00, 7.71it/s]
8 11241
9 torch.Size([11241, 27])
10 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-46f6277ef1df2ed0/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1...
11 Downloading data files: 100%|██████████| 1/1 [00:00<00:00, 2011.66it/s]
12 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 83.89it/s]
13 0%|          | 0/1 [00:00<?, ?it/s] Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-46f6277ef1df2ed0/0.0.0/6954658bab30a358235fa864b05cf819af0e179325c740e4bc853bcc7ec513e1. Subsequent calls will reuse this data.
14 100%|██████████| 1/1 [00:00<00:00, 23.89it/s]
15 Downloading data files: 100%|██████████| 1/1 [00:00
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15 <?, ?it/s]
16 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-53ee2fdd511de1da/0.0.0/
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bcc7ec513e1...
17 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 125.45it/s]
18 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-53ee2fdd511de1da/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1. Subsequent calls will reuse this data.
19 100%|██████████| 1/1 [00:00<00:00, 45.59it/s]
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 diversity_sampling_exp_add2
26 diversity_sampling_exp_add2
27 diversity_sampling_exp_add2
28 diversity_sampling_exp_add2
29 diversity_sampling_exp_add2
30 diversity_sampling_exp_add2
31 diversity_sampling_exp_add2
32 diversity_sampling_exp_add2
33 315.0
34 ./embeddings/NEW_bertie_embeddings_textattack/bert-base-uncased-MNLI_subset_1.pt
35 Downloading data files: 100%|██████████| 1/1 [00:00<00:00, 998.64it/s]
36 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 111.32it/s]
37 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-de9667a32e20cab2/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1...
38 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
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38 downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-de9667a32e20cab2/0.0
.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1. Subsequent calls will reuse this data.
39 100%|██████████| 1/1 [00:00<00:00, 16.13it/s]
40 test len 14445
41 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-c9535fc5a965c0fe/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1...
42 Downloading data files: 100%|██████████| 1/1 [00:00<
00:00, 1005.35it/s]
43 Extracting data files: 100%|██████████| 1/1 [00:00<00
:00, 79.77it/s]
44 100%|██████████| 1/1 [00:00<00:00, 41.12it/s]
45 Dataset csv downloaded and prepared to C:/Users/admin/.cache/huggingface/datasets/csv/default-c9535fc5a965c0fe/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc853
bcc7ec513e1. Subsequent calls will reuse this data.
46 preprocess_samples begin ...
47 uncertainty shape: 1530
48 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
49 classify begin
50 3211
51 0%|          | 0/20 [00:00<?, ?it/s]
    diversity_sampling_exp_add2
52 diversity_sampling_exp_add2
53 332it [00:12, 187.29it/s]diversity_sampling_exp_add2
54 diversity_sampling_exp_add2
55 355it [00:24, 187.29it/s]diversity_sampling_exp_add2
56 diversity_sampling_exp_add2
57 708it [00:32, 151.69it/s]diversity_sampling_exp_add2
58 diversity_sampling_exp_add2
59 710it [00:44, 151.69it/s]diversity_sampling_exp_add2
60 diversity_sampling_exp_add2
61 1056it [00:52, 174.07it/s]diversity_sampling_exp_add2
62 diversity_sampling_exp_add2
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63 diversity_sampling_exp_add2
64 1066it [01:08, 5.12it/s]
    diversity_sampling_exp_add2
65 1394it [01:09, 157.11it/s]
    diversity_sampling_exp_add2
66 diversity_sampling_exp_add2
67 diversity_sampling_exp_add2
68 1421it [01:27, 5.56it/s]
    diversity_sampling_exp_add2
69 1740it [01:28, 143.90it/s]
    diversity_sampling_exp_add2
70 diversity_sampling_exp_add2
71 diversity_sampling_exp_add2
72 1776it [01:44, 7.45it/s]
    diversity_sampling_exp_add2
73 2113it [01:45, 155.27it/s]
    diversity_sampling_exp_add2
74 diversity_sampling_exp_add2
75 diversity_sampling_exp_add2
76 diversity_sampling_exp_add2
77 2467it [02:02, 161.36it/s]
    diversity_sampling_exp_add2
78 diversity_sampling_exp_add2
79 2485it [02:14, 161.36it/s]
    diversity_sampling_exp_add2
80 diversity_sampling_exp_add2
81 2838it [02:22, 208.98it/s]
    diversity_sampling_exp_add2
82 diversity_sampling_exp_add2
83 2840it [02:34, 208.98it/s]
    diversity_sampling_exp_add2
84 diversity_sampling_exp_add2
85 3165it [02:42, 129.60it/s]
    diversity_sampling_exp_add2
86 diversity_sampling_exp_add2
87 3195it [02:55, 129.60it/s]
    diversity_sampling_exp_add2
88 diversity_sampling_exp_add2
89 3537it [03:01, 164.82it/s]
    diversity_sampling_exp_add2
90 diversity_sampling_exp_add2
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91 3550it [03:15, 164.82it/s]
    diversity_sampling_exp_add2
92 diversity_sampling_exp_add2
93 3880it [03:21, 162.79it/s]
    diversity_sampling_exp_add2
94 diversity_sampling_exp_add2
95 diversity_sampling_exp_add2
96 3906it [03:39, 4.86it/s]
    diversity_sampling_exp_add2
97 4230it [03:40, 161.55it/s]
    diversity_sampling_exp_add2
98 diversity_sampling_exp_add2
99 diversity_sampling_exp_add2
100 4261it [03:59, 5.71it/s]
    diversity_sampling_exp_add2
101 4603it [04:00, 152.00it/s]
    diversity_sampling_exp_add2
102 diversity_sampling_exp_add2
103 diversity_sampling_exp_add2
104 4615it [04:15, 152.00it/s]
    diversity_sampling_exp_add2
105 4941it [04:20, 141.68it/s]
    diversity_sampling_exp_add2
106 diversity_sampling_exp_add2
107 diversity_sampling_exp_add2
108 4971it [04:38, 5.35it/s]
    diversity_sampling_exp_add2
109 5308it [04:39, 155.81it/s]
    diversity_sampling_exp_add2
110 diversity_sampling_exp_add2
111 diversity_sampling_exp_add2
112 5326it [04:56, 5.67it/s]
    diversity_sampling_exp_add2
113 5671it [04:57, 155.25it/s]
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114 diversity_sampling_exp_add2
115 diversity_sampling_exp_add2
116 diversity_sampling_exp_add2
117 6014it [05:14, 138.57it/s]
    diversity_sampling_exp_add2
118 diversity_sampling_exp_add2
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119 6035it [05:25, 138.57it/s]
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120 diversity_sampling_exp_add2
121 6370it [05:34, 135.28it/s]
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122 diversity_sampling_exp_add2
123 6390it [05:45, 135.28it/s]
    diversity_sampling_exp_add2
124 diversity_sampling_exp_add2
125 6723it [05:52, 153.77it/s]
    diversity_sampling_exp_add2
126 diversity_sampling_exp_add2
127 diversity_sampling_exp_add2
128 6745it [06:05, 153.77it/s]
    diversity_sampling_exp_add2
129 7092it [06:10, 156.43it/s]
    diversity_sampling_exp_add2
130 diversity_sampling_exp_add2
131 epoch number 19
132 7100it [06:25, 156.43it/s]
    diversity_sampling_exp_add2
133 diversity_sampling_exp_add2
134 diversity_sampling_exp_add2
135 diversity_sampling_exp_add2
136 global t is : 0
137 test epoch results {'accuracy': 0.5392156862745098
, 'f1_weighted': 0.4939554215710343, 'f1_macro': 0.
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0.04347826, 0.5033557 , 0.58989229, 0.
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0.66666667, 0.60483871, 0.47152318, 0.
54494382]), 'recall': array([0.83589744, 0
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0.02247191, 0.43103448, 0.78761062, 0.
49489796])}
141 val epoch results {'accuracy': 0.5714285714285714, 'f1_weighted': 0.522547618545668, 'f1_macro': 0.
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142          0.1      , 0.64615385, 0.61176471, 0.
51428571]), 'precision': array([0.83333333, 0
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143      1.      , 0.72413793, 0.47852761, 0.6
]), 'recall': array([0.875      , 0.
0.36363636, 0.      , 0.52272727,
144      0.05263158, 0.58333333, 0.84782609, 0.45
])}

145 7100it [06:34, 17.99it/s]
146 diversity len embedding 11241
147 MLP_1h(
148     (l1): Linear(in_features=27, out_features=100,
bias=True)
149     (l2): Linear(in_features=100, out_features=9, bias
=True)
150 )
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151 3964, 771, 5651, 5431, 561, 5070, 8317, 3383, 481, 10795, 8219, 4496, 7678, 7507, 10113, 3887, 4269, 6679, 250, 10556, 6807, 4829, 6414, 5101, 11114, 342 , 5054, 5609, 3999, 302, 8853, 10136, 11097, 4633, 5842, 3879, 1106, 4968, 9539, 9787, 8346, 6703, 799 , 4619, 3646, 7658, 4390, 3055, 6653, 5860, 9217, 4586, 6213, 376, 1061, 4135, 497, 5635, 4134, 7316, 5919, 2135, 8204, 4489, 5418, 4121, 5404, 6366, 4994 , 184, 9785, 6431, 2629, 60, 4014, 5427, 1257, 2700 , 2004, 4911, 3422, 6385, 4352, 5466, 8322, 1785, 5996, 7843, 10390, 8215, 2512, 2062, 9168, 5641, 8006, 8618, 2288, 2984, 441, 5121, 3425, 1017, 1909 , 589, 9347, 4454, 5235, 8432, 2113, 2815, 9466, 2661, 10428, 3382, 2681, 3168, 28, 576, 7139, 10827 , 9423, 7095, 8523, 10397, 6991, 10716, 8524, 10027 , 2581, 7519, 10640, 5395, 396, 4690, 2796, 4877, 241, 3331, 6123, 11084, 6113, 3233, 9366, 9867, 10343, 5313, 291, 4769, 10845, 8306, 6982, 2791, 2100, 6534, 8128, 7100, 2782, 8370, 6334, 2882, 3655 , 6160, 10859, 3358, 4340, 5746, 871, 6443, 1132, 3050, 2935, 9614, 83, 10569, 9409, 7500, 2038, 4974 , 2406, 6343, 9705, 7182, 10550, 7449, 766, 10163, 10078, 8477, 670, 12, 3179, 728, 3693, 6763, 8284, 10923, 6729, 8167, 10115, 10729, 2814, 7657, 10609, 9695, 5606, 3001, 11169, 11104, 9099, 2209, 148, 1374, 5608, 3315, 1983, 10328, 3066, 7132, 9153, 6586, 36, 8815, 2042, 7040, 8841, 3016, 717, 9052, 5711, 3780, 2942, 3579, 8264, 1158, 9966, 9421, 537 , 8873, 1457, 2056, 9045, 2654, 2203, 6865, 1165, 6079, 1706, 2736, 6294, 9260, 8582, 4940, 9328, 4219 , 4271, 4056, 10079, 2384, 6128, 5271, 722, 9885, 1835, 383, 6164, 6397, 11018, 7004, 116, 4214, 7005 , 6452, 4488, 11026, 7743, 2664, 5802, 7444, 8122, 4822, 1556, 878, 677, 8573, 4031, 7958, 2224, 7085, 215, 10222, 3257, 2871, 3135, 5094, 4206, 367, 4735 , 3555, 2319, 6701, 8695, 2032, 10409, 6922, 8713, 394, 6189, 1375, 9900, 4384, 7435, 1155, 4294, 8132 , 3845, 7389]

152 ['someone is confirm dead death die or killed\n', 'people are asking for donations give \$ money generously\n']

```
153 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
4e55c249bc3da38d/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
154 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
155 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 125.38it/s]  
156 100%|██████████| 1/1 [00:00<00:00, 82.99it/s]  
157 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
4e55c249bc3da38d/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
158 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
159 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
5e3f021b0dcc8ddc/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
160 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 134.34it/s]  
161 100%|██████████| 1/1 [00:00<00:00, 100.12it/s]  
162 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
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3bcc7ec513e1. Subsequent calls will reuse this data.  
163 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
164 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.06it/s]  
165 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-590ff64f6108cc48/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
166 Dataset csv downloaded and prepared to C:/Users/
```

```
166 admin/.cache/huggingface/datasets/csv/default-
590ff64f6108cc48/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
167 100%|██████████| 1/1 [00:00<00:00, 99.94it/s]
168 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
169 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 143.31it/s]
170 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-cbb71cf99da1c4e6/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
171 100%|██████████| 1/1 [00:00<00:00, 111.48it/s]
172 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
cbb71cf99da1c4e6/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
173 t is : 1
174 addlen is: 500
175 noexp_df.shape[0] last 8993
176 unexplained dataset length is:
177 8993
178 embedding begin
179 trian and val dataset length: 59400
180 diversity_sampling_exp_add2
181 diversity_sampling_exp_add2
182 diversity_sampling_exp_add2
183 diversity_sampling_exp_add2
184 diversity_sampling_exp_add2
185 diversity_sampling_exp_add2
186 diversity_sampling_exp_add2
187 diversity_sampling_exp_add2
188 540.0
189 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
190 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-de9667a32e20cab2/0.
```

```
190 0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1)
191 100%|██████████| 1/1 [00:00<00:00, 1006.55it/s]
192 test len 17655
193 Downloading data files: 100%|██████████| 1/1 [00:00
    <?, ?it/s]
194 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 153.46it/s]
195 Generating train split: 0 examples [00:00, ?
    examples/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-301a749cf15d84d8/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1...
196 100%|██████████| 1/1 [00:00<00:00, 74.45it/s]
197 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    301a749cf15d84d8/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1. Subsequent calls will reuse this data.
198 preprocess_samples begin ...
199 uncertainty shape: 1530
200 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
201 classify begin
202 5459
203     0%|          | 0/20 [00:00<?, ?it/s]
        diversity_sampling_exp_add2
204 diversity_sampling_exp_add2
205 537it [00:08, 221.35it/s]diversity_sampling_exp_add2
206 diversity_sampling_exp_add2
207 diversity_sampling_exp_add2
208 diversity_sampling_exp_add2
209 1176it [00:21, 160.11it/s]
        diversity_sampling_exp_add2
210 diversity_sampling_exp_add2
211 diversity_sampling_exp_add2
212 1217it [00:34, 17.87it/s]
        diversity_sampling_exp_add2
213 1761it [00:35, 150.80it/s]
```

```
213 diversity_sampling_exp_add2
214 diversity_sampling_exp_add2
215 diversity_sampling_exp_add2
216 diversity_sampling_exp_add2
217 2358it [00:49, 141.57it/s]
    diversity_sampling_exp_add2
218 diversity_sampling_exp_add2
219 diversity_sampling_exp_add2
220 diversity_sampling_exp_add2
221 2956it [01:02, 146.68it/s]
    diversity_sampling_exp_add2
222 diversity_sampling_exp_add2
223 diversity_sampling_exp_add2
224 3041it [01:15, 20.22it/s]
    diversity_sampling_exp_add2
225 3628it [01:15, 188.59it/s]
    diversity_sampling_exp_add2
226 diversity_sampling_exp_add2
227 diversity_sampling_exp_add2
228 diversity_sampling_exp_add2
229 4164it [01:29, 115.29it/s]
    diversity_sampling_exp_add2
230 diversity_sampling_exp_add2
231 diversity_sampling_exp_add2
232 diversity_sampling_exp_add2
233 4808it [01:42, 153.59it/s]
    diversity_sampling_exp_add2
234 diversity_sampling_exp_add2
235 diversity_sampling_exp_add2
236 4865it [01:55, 19.24it/s]
    diversity_sampling_exp_add2
237 5400it [01:56, 151.91it/s]
    diversity_sampling_exp_add2
238 diversity_sampling_exp_add2
239 diversity_sampling_exp_add2
240 diversity_sampling_exp_add2
241 6037it [02:09, 154.80it/s]
    diversity_sampling_exp_add2
242 diversity_sampling_exp_add2
243 diversity_sampling_exp_add2
244 diversity_sampling_exp_add2
```

```
245 6601it [02:23, 117.00it/s]
    diversity_sampling_exp_add2
246 diversity_sampling_exp_add2
247 diversity_sampling_exp_add2
248 6689it [02:36, 20.64it/s]
    diversity_sampling_exp_add2
249 7241it [02:36, 150.06it/s]
    diversity_sampling_exp_add2
250 diversity_sampling_exp_add2
251 diversity_sampling_exp_add2
252 diversity_sampling_exp_add2
253 7847it [02:50, 144.29it/s]
    diversity_sampling_exp_add2
254 diversity_sampling_exp_add2
255 diversity_sampling_exp_add2
256 diversity_sampling_exp_add2
257 8448it [03:03, 145.40it/s]
    diversity_sampling_exp_add2
258 diversity_sampling_exp_add2
259 diversity_sampling_exp_add2
260 diversity_sampling_exp_add2
261 9100it [03:17, 187.30it/s]
    diversity_sampling_exp_add2
262 diversity_sampling_exp_add2
263 diversity_sampling_exp_add2
264 diversity_sampling_exp_add2
265 9634it [03:30, 113.35it/s]
    diversity_sampling_exp_add2
266 diversity_sampling_exp_add2
267 diversity_sampling_exp_add2
268 9729it [03:43, 20.62it/s]
    diversity_sampling_exp_add2
269 10260it [03:44, 148.07it/s]
    diversity_sampling_exp_add2
270 diversity_sampling_exp_add2
271 diversity_sampling_exp_add2
272 diversity_sampling_exp_add2
273 10910it [03:57, 157.48it/s]
    diversity_sampling_exp_add2
274 diversity_sampling_exp_add2
275 diversity_sampling_exp_add2
```

```
276 diversity_sampling_exp_add2
277 11466it [04:11, 114.99it/s]
    diversity_sampling_exp_add2
278 diversity_sampling_exp_add2
279 diversity_sampling_exp_add2
280 11553it [04:23, 20.48it/s]
    diversity_sampling_exp_add2
281 12109it [04:24, 152.26it/s]
    diversity_sampling_exp_add2
282 diversity_sampling_exp_add2
283 epoch number 19
284 diversity_sampling_exp_add2
285 diversity_sampling_exp_add2
286 diversity_sampling_exp_add2
287 diversity_sampling_exp_add2
288 global t is : 1
289 test epoch results {'accuracy': 0.538562091503268, 'f1_weighted': 0.496457449374142, 'f1_macro': 0.38191465127446844, 'f1': array([0.80684597, 0. ., 0.33846154, 0.17857143, 0.56431535, 0. ., 0.42804428, 0.58031088, 0.54068241]), 'precision': array([0.77102804, 0. ., 0.6875, 0.34090909, 0.50746269, 0. ., 0.59793814, 0.47592068, 0.55675676]), 'recall': array([0.84615385, 0. ., 0.2244898, 0.12096774, 0.63551402, 0. ., 0.33333333, 0.74336283, 0.5255102 ])}
290
291
292
293 val epoch results {'accuracy': 0.5555555555555556, 'f1_weighted': 0.5125709202922737, 'f1_macro': 0.39854572904621227, 'f1': array([0.86705202, 0. ., 0.46153846, 0.1754386, 0.51948052, 0. ., 0.47916667, 0.58823529, 0.496 ]), 'precision': array([0.79787234, 0. ., 0.66666667, 0.38461538, 0.50632911, 0. ., 0.65714286, 0.46692607, 0.58490566]), 'recall': array([0.94936709, 0. ., 0.35294118, 0.11363636, 0.53333333, 0. ., 0.37704918, 0.79470199, 0.43055556])}
294
295
296
297 12160it [04:39, 43.53it/s]
```

```
298 diversity new embedding 8993
299 diversity len embedding 8993
300 MLP_1h(
301     (l1): Linear(in_features=33, out_features=100,
302      bias=True)
302     (l2): Linear(in_features=100, out_features=9, bias
303      =True)
303 )
304 [3199, 7785, 2209, 7286, 215, 3111, 5406, 465, 6265
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, 8330, 3294, 8067, 6698, 5882, 1034, 3019, 493, 5,
8550, 4608, 405, 4454, 4968, 4775, 5935, 203, 2349,
89, 4755, 1514, 6849, 8309, 1124, 543, 6115, 3210,
2167, 3982, 4240, 2921, 8987, 100, 5018, 7738, 5761
, 6245, 260, 6926, 3213, 232, 1093, 4920, 7692, 6488
, 8373, 2702, 677, 7236, 2566, 4070, 1453, 3909,
6565, 6275, 4347, 1710, 8101, 7343, 5228, 7425, 1760
, 3063, 8887, 4187, 1315, 4193, 8011, 5059, 2843,
8186, 3638, 1511, 2028, 7818, 5019, 6578, 4835, 2662
, 7228, 3392, 6135, 6751, 8770, 4589, 4880, 8510,
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3244, 3288, 1933, 2588, 5898, 3998, 6854, 3362, 3908
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3262, 5607, 4466, 6941, 2937, 2329, 4512, 5749, 870
, 7928, 1304, 2163, 1154, 5726, 942, 7229, 188, 6295
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, 245, 4175, 2994, 2810, 7172, 694, 729, 6011, 4303
, 2618, 8126, 4959, 738, 7347, 338, 1364, 2506, 1282
, 8222, 243, 4916, 4148, 1408, 3105, 7717, 1092,
3272, 6045, 3544, 6553, 344, 2708, 1873, 5959, 3543
, 2868, 1058, 1409, 2047, 1844, 8577, 7843, 4782,
4777, 6865, 7203, 1827, 909, 3648, 6509, 5078, 3701
, 7397, 2434, 622, 3636, 1450, 5489, 1091, 8284,
3564, 3889, 3679, 4789, 2044, 6651, 8245, 7594, 5703
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were displaced sent to shelters temporary\n']  
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3bcc7ec513e1...  
307 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
308 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 125.75it/s]  
309 100%|██████████| 1/1 [00:00<00:00, 111.02it/s]  
310 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
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311 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
312 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 134.23it/s]  
313 Generating train split: 0 examples [00:00, ?  
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default to C:/Users/admin/.cache/huggingface/  
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3bcc7ec513e1...  
314 100%|██████████| 1/1 [00:00<00:00, 80.32it/s]  
315 Dataset csv downloaded and prepared to C:/Users/
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316 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
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3bcc7ec513e1...
318 Extracting data files: 100%|██████████| 1/1 [00:00<
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319 100%|██████████| 1/1 [00:00<00:00, 95.53it/s]
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321 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
322 Downloading and preparing dataset csv/default to C:/Users/admin/.cache/huggingface/datasets/csv/default-
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3bcc7ec513e1...
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324 100%|██████████| 1/1 [00:00<00:00, 91.29it/s]
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326 t is : 2
327 addlen is: 1000
328 noexp_df.shape[0] last 7195
329 unexplained dataset length is:
330 7195
331 embedding begin
332 trian and val dataset length: 93600
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333 diversity_sampling_exp_add2
334 diversity_sampling_exp_add2
335 diversity_sampling_exp_add2
336 diversity_sampling_exp_add2
337 diversity_sampling_exp_add2
338 diversity_sampling_exp_add2
339 diversity_sampling_exp_add2
340 diversity_sampling_exp_add2
341 720.0
342 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
343 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-de9667a32e20cab2/0.
    0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1)
344 100%|██████████| 1/1 [00:00<00:00, 77.42it/s]
345 test len 20865
346 Downloading data files: 100%|██████████| 1/1 [00:00<
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347 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 166.80it/s]
348 Generating train split: 0 examples [00:00, ?
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    default to C:/Users/admin/.cache/huggingface/
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    3bcc7ec513e1...
349 100%|██████████| 1/1 [00:00<00:00, 80.50it/s]
350 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
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    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1. Subsequent calls will reuse this data.
351 preprocess_samples begin ...
352 uncertainty shape: 1530
353 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
354 classify begin
355 7257
356 0% | 0/20 [00:00<?, ?it/s]
```

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357 diversity_sampling_exp_add2
358 793it [00:15, 315.00it/s] diversity_sampling_exp_add2
359 diversity_sampling_exp_add2
360 diversity_sampling_exp_add2
361 811it [00:28, 15.68it/s] diversity_sampling_exp_add2
362 1599it [00:29, 339.59it/s]
    diversity_sampling_exp_add2
363 diversity_sampling_exp_add2
364 diversity_sampling_exp_add2
365 diversity_sampling_exp_add2
366 2361it [00:43, 246.46it/s]
    diversity_sampling_exp_add2
367 diversity_sampling_exp_add2
368 diversity_sampling_exp_add2
369 diversity_sampling_exp_add2
370 3185it [00:58, 295.69it/s]
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372 diversity_sampling_exp_add2
373 diversity_sampling_exp_add2
374 3980it [01:12, 284.89it/s]
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377 diversity_sampling_exp_add2
378 4796it [01:27, 299.48it/s]
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380 diversity_sampling_exp_add2
381 4861it [01:40, 18.01it/s]
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382 5584it [01:41, 266.18it/s]
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383 diversity_sampling_exp_add2
384 diversity_sampling_exp_add2
385 diversity_sampling_exp_add2
386 6414it [01:55, 269.21it/s]
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387 diversity_sampling_exp_add2
388 diversity_sampling_exp_add2
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390 7276it [02:09, 340.79it/s]
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391 diversity_sampling_exp_add2
392 diversity_sampling_exp_add2
393 diversity_sampling_exp_add2
394 8025it [02:24, 236.75it/s]
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395 diversity_sampling_exp_add2
396 diversity_sampling_exp_add2
397 diversity_sampling_exp_add2
398 8854it [02:38, 301.99it/s]
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400 diversity_sampling_exp_add2
401 diversity_sampling_exp_add2
402 9678it [02:52, 304.90it/s]
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403 diversity_sampling_exp_add2
404 diversity_sampling_exp_add2
405 diversity_sampling_exp_add2
406 10499it [03:06, 300.51it/s]
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407 diversity_sampling_exp_add2
408 diversity_sampling_exp_add2
409 10530it [03:17, 300.51it/s]
    diversity_sampling_exp_add2
410 11264it [03:21, 299.32it/s]
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414 12108it [03:35, 309.10it/s]
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415 diversity_sampling_exp_add2
416 diversity_sampling_exp_add2
417 12151it [03:48, 17.07it/s]
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418 12959it [03:49, 337.28it/s]
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425 diversity_sampling_exp_add2
426 14506it [04:17, 274.40it/s]
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427 diversity_sampling_exp_add2
428 diversity_sampling_exp_add2
429 14580it [04:27, 274.40it/s]
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430 15381it [04:32, 351.55it/s]
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432 diversity_sampling_exp_add2
433 diversity_sampling_exp_add2
434 16190it [04:46, 294.23it/s]
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435 diversity_sampling_exp_add2
436 epoch number 19
437 diversity_sampling_exp_add2
438 diversity_sampling_exp_add2
439 16200it [04:57, 294.23it/s]
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446 val epoch results {'accuracy': 0.5944444444444444, 'f1_weighted': 0.5617722279897497, 'f1_macro': 0.4487712565912573, 'f1': array([0.8744186, 0. . . , 0.55813953, 0.22222222, 0.61306533, 0. . . , 0.61333333, 0.59149723, 0.56626506]), 'precision': array([0.87850467, 0. . . , 0.54545455, 0.57142857, 0.61 . . . , 0.65714286, 0.47904192, 0.65277778]), 'recall': array([0.87037037, 0. . . , 0.57142857, 0.13793103, 0.61616162, 0. . . , 0.575 . . . , 0.77294686, 0.5])}
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452 diversity len embedding 7195
453 MLP_1h(
454     (l1): Linear(in_features=39, out_features=100,
455      bias=True)
455     (l2): Linear(in_features=100, out_features=9, bias
456      =True)
456 )
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458 ['people are praying god bless keep safe folded  
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losses no electricity\n']  
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3bcc7ec513e1...  
460 Downloading data files: 100%|██████████| 1/1 [00:00<  
00:00, 1943.61it/s]  
461 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.81it/s]  
462 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv  
downloaded and prepared to C:/Users/admin/.cache/  
huggingface/datasets/csv/default-07604ec68584177d/0.  
0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.
```

```
463 100%|██████████| 1/1 [00:00<00:00, 57.53it/s]
464 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
465 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 143.87it/s]
466 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-7031fb9c07a24e28/0.0.0/
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467 100%|██████████| 1/1 [00:00<00:00, 64.95it/s]
468 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
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6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
469 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
470 Extracting data files: 0%|          | 0/1 [00:00
<, ?it/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
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3bcc7ec513e1...
471 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 43.63it/s]
472 100%|██████████| 1/1 [00:00<00:00, 106.89it/s]
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3bcc7ec513e1. Subsequent calls will reuse this data.
474 Downloading data files: 100%|██████████| 1/1 [00:00<
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3bcc7ec513e1...
476 Extracting data files: 100%|██████████| 1/1 [00:00<
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476 00:00, 153.67it/s]
477 100%|██████████| 1/1 [00:00<00:00, 111.49it/s]
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479 t is : 3
480 addlen is: 1500
481 noexp_df.shape[0] last 5756
482 unexplained dataset length is:
483 5756
484 embedding begin
485 trian and val dataset length: 129600
486 diversity_sampling_exp_add2
487 diversity_sampling_exp_add2
488 diversity_sampling_exp_add2
489 diversity_sampling_exp_add2
490 diversity_sampling_exp_add2
491 diversity_sampling_exp_add2
492 diversity_sampling_exp_add2
493 diversity_sampling_exp_add2
494 864.0
495 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
496 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-de9667a32e20cab2/0.
    0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
    3bcc7ec513e1)
497 100%|██████████| 1/1 [00:00<00:00, 87.51it/s]
498 test len 24075
499 Downloading data files: 100%|██████████| 1/1 [00:00
    <?, ?it/s]
500 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 143.66it/s]
501 Generating train split: 0 examples [00:00, ?
    examples/s]Downloading and preparing dataset csv/
    default to C:/Users/admin/.cache/huggingface/
    datasets/csv/default-ddb838fadab3ff0f/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
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501 3bcc7ec513e1...
502 0% | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-ddb838fadab3ff0f/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
503 100% | 1/1 [00:00<00:00, 54.41it/s]
504 preprocess_samples begin ...
505 uncertainty shape: 1530
506 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
507 classify begin
508 8696
509 0% | 0/20 [00:00<?, ?it/s]
    diversity_sampling_exp_add2
510 diversity_sampling_exp_add2
511 969it [00:17, 445.35it/s]diversity_sampling_exp_add2
512 diversity_sampling_exp_add2
513 972it [00:28, 445.35it/s]diversity_sampling_exp_add2
514 diversity_sampling_exp_add2
515 1920it [00:34, 445.43it/s]
    diversity_sampling_exp_add2
516 diversity_sampling_exp_add2
517 diversity_sampling_exp_add2
518 1944it [00:48, 445.43it/s]
    diversity_sampling_exp_add2
519 2906it [00:53, 345.52it/s]
    diversity_sampling_exp_add2
520 diversity_sampling_exp_add2
521 diversity_sampling_exp_add2
522 diversity_sampling_exp_add2
523 3845it [01:09, 412.83it/s]
    diversity_sampling_exp_add2
524 diversity_sampling_exp_add2
525 diversity_sampling_exp_add2
526 diversity_sampling_exp_add2
527 4830it [01:24, 448.80it/s]
    diversity_sampling_exp_add2
528 diversity_sampling_exp_add2
529 diversity_sampling_exp_add2
```

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530 4860it [01:38, 448.80it/s]
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531 5778it [01:41, 460.38it/s]
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532 diversity_sampling_exp_add2
533 diversity_sampling_exp_add2
534 diversity_sampling_exp_add2
535 6777it [01:56, 452.06it/s]
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536 diversity_sampling_exp_add2
537 diversity_sampling_exp_add2
538 6804it [02:08, 452.06it/s]
    diversity_sampling_exp_add2
539 7734it [02:12, 471.12it/s]
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540 diversity_sampling_exp_add2
541 diversity_sampling_exp_add2
542 diversity_sampling_exp_add2
543 8732it [02:27, 453.21it/s]
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544 diversity_sampling_exp_add2
545 8748it [02:38, 453.21it/s]
    diversity_sampling_exp_add2
546 diversity_sampling_exp_add2
547 9714it [02:43, 474.90it/s]
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548 diversity_sampling_exp_add2
549 diversity_sampling_exp_add2
550 diversity_sampling_exp_add2
551 10657it [02:59, 436.53it/s]
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552 diversity_sampling_exp_add2
553 diversity_sampling_exp_add2
554 diversity_sampling_exp_add2
555 11613it [03:14, 430.79it/s]
    diversity_sampling_exp_add2
556 diversity_sampling_exp_add2
557 diversity_sampling_exp_add2
558 11664it [03:28, 430.79it/s]
    diversity_sampling_exp_add2
559 12613it [03:30, 413.75it/s]
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559 diversity_sampling_exp_add2
560 diversity_sampling_exp_add2
561 diversity_sampling_exp_add2
562 diversity_sampling_exp_add2
563 13550it [03:46, 422.54it/s]
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564 diversity_sampling_exp_add2
565 diversity_sampling_exp_add2
566 13609it [04:00, 14.02it/s]
    diversity_sampling_exp_add2
567 14539it [04:02, 451.76it/s]
    diversity_sampling_exp_add2
568 diversity_sampling_exp_add2
569 diversity_sampling_exp_add2
570 diversity_sampling_exp_add2
571 15537it [04:17, 448.13it/s]
    diversity_sampling_exp_add2
572 diversity_sampling_exp_add2
573 diversity_sampling_exp_add2
574 15552it [04:28, 448.13it/s]
    diversity_sampling_exp_add2
575 16517it [04:33, 482.83it/s]
    diversity_sampling_exp_add2
576 diversity_sampling_exp_add2
577 diversity_sampling_exp_add2
578 diversity_sampling_exp_add2
579 17489it [04:48, 439.97it/s]
    diversity_sampling_exp_add2
580 diversity_sampling_exp_add2
581 diversity_sampling_exp_add2
582 diversity_sampling_exp_add2
583 18464it [05:03, 436.54it/s]
    diversity_sampling_exp_add2
584 diversity_sampling_exp_add2
585 diversity_sampling_exp_add2
586 diversity_sampling_exp_add2
587 19377it [05:18, 381.25it/s]
    diversity_sampling_exp_add2
588 diversity_sampling_exp_add2
589 epoch number 19
590 diversity_sampling_exp_add2
```

```
591 diversity_sampling_exp_add2
592 diversity_sampling_exp_add2
593 diversity_sampling_exp_add2
594 global t is : 3
595 test epoch results {'accuracy': 0.6176470588235294
, 'f1_weighted': 0.591634620954136, 'f1_macro': 0.
5014498927121473, 'f1': array([0.85279188, 0.24
, 0.44705882, 0.31818182, 0.62882096,
596 0.08333333, 0.69767442, 0.62980319, 0.
61538462]), 'precision': array([0.84422111, 0.
46153846, 0.52777778, 0.53846154, 0.59016393,
597 0.57142857, 0.70588235, 0.54634146, 0.6185567
]), 'recall': array([0.86153846, 0.16216216, 0.
3877551 , 0.22580645, 0.6728972 ,
598 0.04494382, 0.68965517, 0.74336283, 0.6122449
])}
599 val epoch results {'accuracy': 0.6261574074074074, 'f1_weighted': 0.6006088214720374, 'f1_macro': 0.
4917566893684927, 'f1': array([0.88122605, 0
, 0.52380952, 0.30612245, 0.59166667,
600 0.22222222, 0.65686275, 0.65299145, 0.
59090909]), 'precision': array([0.85185185, 0
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601 0.75 , 0.62616822, 0.56676558, 0.
60185185]), 'recall': array([0.91269841, 0
, 0.44 , 0.21126761, 0.59166667,
602 0.13043478, 0.69072165, 0.77016129, 0.
58035714])}
603 19440it [05:37, 57.63it/s]
604 diversity new embedding 5756
605 diversity len embedding 5756
606 MLP_1h(
607   (l1): Linear(in_features=45, out_features=100,
bias=True)
608   (l2): Linear(in_features=100, out_features=9, bias
=True)
609 )
610 [5271, 3136, 1976, 1259, 5611, 4896, 3840, 5015,
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611 ['people are offering to help volunteering\n', '  
people are asked to be careful tips and guidance\n']  
612 Downloading and preparing dataset csv/default to C:/  
Users/admin/.cache/huggingface/datasets/csv/default-  
cdcc8c2193914f46/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
613 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
614 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 128.29it/s]  
615 100%|██████████| 1/1 [00:00<00:00, 62.50it/s]  
616 Dataset csv downloaded and prepared to C:/Users/  
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3bcc7ec513e1. Subsequent calls will reuse this data.  
617 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
618 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.34it/s]  
619 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-a180e5ba9a33b59e/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1...  
620 100%|██████████| 1/1 [00:00<00:00, 71.70it/s]  
621 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
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6954658bab30a358235fa864b05cf819af0e179325c740e4bc85  
3bcc7ec513e1. Subsequent calls will reuse this data.  
622 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
623 Downloading and preparing dataset csv/default to C:/
```

```
623 Users/admin/.cache/huggingface/datasets/csv/default-
a19c88907c22f47d/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
624 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 144.22it/s]
625 100%|██████████| 1/1 [00:00<00:00, 100.57it/s]
626 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
a19c88907c22f47d/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
627 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
628 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 120.75it/s]
629 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
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6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
630 100%|██████████| 1/1 [00:00<00:00, 100.23it/s]
631 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
10bbb9932a8b802f/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
632 t is : 4
633 addlen is: 2000
634 noexp_df.shape[0] last 4605
635 unexplained dataset length is:
636 4605
637 embedding begin
638 trian and val dataset length: 166770
639 diversity_sampling_exp_add2
640 diversity_sampling_exp_add2
641 diversity_sampling_exp_add2
642 diversity_sampling_exp_add2
643 diversity_sampling_exp_add2
644 diversity_sampling_exp_add2
```

```
645 diversity_sampling_exp_add2
646 diversity_sampling_exp_add2
647 981.0
648 ./embeddings/NEW_bertie_embeddings_textattack/bert-
    base-uncased-MNLI_subset_1.pt
649 Found cached dataset csv (C:/Users/admin/.cache/
    huggingface/datasets/csv/default-de9667a32e20cab2/0.
    0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1)
650 100%|██████████| 1/1 [00:00<00:00, 167.68it/s]
651 test len 27285
652 Downloading and preparing dataset csv/default to C:/
    Users/admin/.cache/huggingface/datasets/csv/default-
    56fa2b01c0b65f78/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
653 Downloading data files: 100%|██████████| 1/1 [00:00<
    00:00, 1001.27it/s]
654 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 111.47it/s]
655 100%|██████████| 1/1 [00:00<00:00, 66.89it/s]
656 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    56fa2b01c0b65f78/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
657 preprocess_samples begin ...
658 uncertainty shape: 1530
659 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
660 classify begin
661 9847
662 0%|          | 0/20 [00:00<?, ?it/s]
    diversity_sampling_exp_add2
663 diversity_sampling_exp_add2
664 1098it [00:11, 413.85it/s]
    diversity_sampling_exp_add2
665 diversity_sampling_exp_add2
666 diversity_sampling_exp_add2
667 diversity_sampling_exp_add2
```

```
668 2172it [00:26, 450.40it/s]
    diversity_sampling_exp_add2
669 diversity_sampling_exp_add2
670 diversity_sampling_exp_add2
671 diversity_sampling_exp_add2
672 3283it [00:42, 590.86it/s]
    diversity_sampling_exp_add2
673 diversity_sampling_exp_add2
674 diversity_sampling_exp_add2
675 diversity_sampling_exp_add2
676 4376it [00:56, 522.82it/s]
    diversity_sampling_exp_add2
677 diversity_sampling_exp_add2
678 diversity_sampling_exp_add2
679 4417it [01:10, 16.83it/s]
    diversity_sampling_exp_add2
680 5486it [01:11, 518.62it/s]
    diversity_sampling_exp_add2
681 diversity_sampling_exp_add2
682 diversity_sampling_exp_add2
683 diversity_sampling_exp_add2
684 6586it [01:26, 536.59it/s]
    diversity_sampling_exp_add2
685 diversity_sampling_exp_add2
686 diversity_sampling_exp_add2
687 6625it [01:40, 17.30it/s]
    diversity_sampling_exp_add2
688 7725it [01:41, 586.94it/s]
    diversity_sampling_exp_add2
689 diversity_sampling_exp_add2
690 diversity_sampling_exp_add2
691 diversity_sampling_exp_add2
692 8810it [01:56, 535.47it/s]
    diversity_sampling_exp_add2
693 diversity_sampling_exp_add2
694 diversity_sampling_exp_add2
695 8833it [02:10, 15.87it/s]
    diversity_sampling_exp_add2
696 9905it [02:12, 492.34it/s]
    diversity_sampling_exp_add2
697 diversity_sampling_exp_add2
```

```
698 diversity_sampling_exp_add2
699 diversity_sampling_exp_add2
700 11034it [02:28, 440.66it/s]
    diversity_sampling_exp_add2
701 diversity_sampling_exp_add2
702 diversity_sampling_exp_add2
703 diversity_sampling_exp_add2
704 12126it [02:43, 519.71it/s]
    diversity_sampling_exp_add2
705 diversity_sampling_exp_add2
706 diversity_sampling_exp_add2
707 12145it [02:57, 10.99it/s]
    diversity_sampling_exp_add2
708 13228it [02:59, 472.46it/s]
    diversity_sampling_exp_add2
709 diversity_sampling_exp_add2
710 diversity_sampling_exp_add2
711 diversity_sampling_exp_add2
712 14337it [03:15, 482.63it/s]
    diversity_sampling_exp_add2
713 diversity_sampling_exp_add2
714 diversity_sampling_exp_add2
715 14353it [03:28, 10.16it/s]
    diversity_sampling_exp_add2
716 15431it [03:30, 494.78it/s]
    diversity_sampling_exp_add2
717 diversity_sampling_exp_add2
718 diversity_sampling_exp_add2
719 diversity_sampling_exp_add2
720 16524it [03:45, 580.23it/s]
    diversity_sampling_exp_add2
721 diversity_sampling_exp_add2
722 diversity_sampling_exp_add2
723 16561it [03:59, 16.57it/s]
    diversity_sampling_exp_add2
724 17618it [04:00, 580.76it/s]
    diversity_sampling_exp_add2
725 diversity_sampling_exp_add2
726 diversity_sampling_exp_add2
727 diversity_sampling_exp_add2
728 18759it [04:16, 522.84it/s]
```

```
728 diversity_sampling_exp_add2
729 diversity_sampling_exp_add2
730 diversity_sampling_exp_add2
731 18769it [04:30, 10.27it/s]
    diversity_sampling_exp_add2
732 19833it [04:32, 495.74it/s]
    diversity_sampling_exp_add2
733 diversity_sampling_exp_add2
734 diversity_sampling_exp_add2
735 diversity_sampling_exp_add2
736 20921it [04:47, 520.93it/s]
    diversity_sampling_exp_add2
737 diversity_sampling_exp_add2
738 diversity_sampling_exp_add2
739 diversity_sampling_exp_add2
740 22045it [05:03, 494.57it/s]
    diversity_sampling_exp_add2
741 diversity_sampling_exp_add2
742 epoch number 19
743 diversity_sampling_exp_add2
744 diversity_sampling_exp_add2
745 22080it [05:17, 494.57it/s]
    diversity_sampling_exp_add2
746 diversity_sampling_exp_add2
747 global t is : 4
748 test epoch results {'accuracy': 0.6261437908496732
, 'f1_weighted': 0.6007146798255104, 'f1_macro': 0.
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0.09615385, 0.69592476, 0.63214286, 0.626703
]), 'precision': array([0.88082902, 0.44444444, 0.
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0.33333333, 0.76551724, 0.52994012, 0.
67251462]), 'recall': array([0.87179487, 0.10810811
, 0.48979592, 0.2016129 , 0.70093458,
0.05617978, 0.63793103, 0.78318584, 0.
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752 val epoch results {'accuracy': 0.6432212028542303, 'f1_weighted': 0.6126233940390604, 'f1_macro': 0.
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753     0.03448276, 0.7037037 , 0.63739377, 0.  
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754     0.33333333, 0.71028037, 0.53191489, 0.  
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, 0.36666667, 0.2 , 0.65151515,  
755     0.01818182, 0.69724771, 0.795053 , 0.  
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756 22080it [05:21, 68.70it/s]  
757 diversity new embedding 4605  
758 diversity len embedding 4605  
759 MLP_1h(  
760     (l1): Linear(in_features=51, out_features=100,  
bias=True)  
761     (l2): Linear(in_features=100, out_features=9, bias  
=True)  
762 )  
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764 ['contains useful information helps to understand  
 the situation is important\n', 'irrelevant not

```
764 related\n']  
765 Downloading data files: 100%|██████████| 1/1 [00:00<  
00:00, 1002.94it/s]  
766 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 142.43it/s]  
767 Generating train split: 0 examples [00:00, ?  
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default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-dccc963e134957b2/0.0.0/  
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768 100%|██████████| 1/1 [00:00<00:00, 112.03it/s]  
769 Dataset csv downloaded and prepared to C:/Users/  
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3bcc7ec513e1. Subsequent calls will reuse this data.  
770 Downloading data files: 100%|██████████| 1/1 [00:00  
<?, ?it/s]  
771 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 167.90it/s]  
772 Generating train split: 0 examples [00:00, ?  
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default to C:/Users/admin/.cache/huggingface/  
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774 100%|██████████| 1/1 [00:00<00:00, 56.11it/s]  
775 Downloading data files: 100%|██████████| 1/1 [00:00<  
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776 Downloading and preparing dataset csv/default to C:/  
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777 Extracting data files: 100%|██████████| 1/1 [00:00<
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778 100%|██████████| 1/1 [00:00<00:00, 74.34it/s]
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780 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
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00:00, 129.40it/s]
783 100%|██████████| 1/1 [00:00<00:00, 96.19it/s]
784 Dataset csv downloaded and prepared to C:/Users/
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3bcc7ec513e1. Subsequent calls will reuse this data.
785 t is : 5
786 addlen is: 2500
787 noexp_df.shape[0] last 3684
788 unexplained dataset length is:
789 3684
790 embedding begin
791 trian and val dataset length: 203490
792 diversity_sampling_exp_add2
793 diversity_sampling_exp_add2
794 diversity_sampling_exp_add2
795 diversity_sampling_exp_add2
796 diversity_sampling_exp_add2
797 diversity_sampling_exp_add2
798 diversity_sampling_exp_add2
799 diversity_sampling_exp_add2
800 1071.0
801 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
```

```
802 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-de9667a32e20cab2/0.
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6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1)
803 100%|██████████| 1/1 [00:00<00:00, 367.05it/s]
804 test len 30495
805 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
806 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 143.70it/s]
807 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-5a99532e3090d77b/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1...
808 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-5a99532e3090d77b/0.
0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
3bcc7ec513e1. Subsequent calls will reuse this data.
809 100%|██████████| 1/1 [00:00<00:00, 17.59it/s]
810 preprocess_samples begin ...
811 uncertainty shape: 1530
812 ./test_embeddings/NEW_bertie_embeddings_textattack/
bert-base-uncased-MNLI_subset_1.pt
813 classify begin
814 10768
815 0%|          | 0/20 [00:00<?, ?it/s]
    diversity_sampling_exp_add2
816 diversity_sampling_exp_add2
817 1178it [00:12, 532.61it/s]
    diversity_sampling_exp_add2
818 diversity_sampling_exp_add2
819 diversity_sampling_exp_add2
820 diversity_sampling_exp_add2
821 2404it [00:30, 502.76it/s]
    diversity_sampling_exp_add2
822 diversity_sampling_exp_add2
```

```
823 diversity_sampling_exp_add2
824 diversity_sampling_exp_add2
825 3563it [00:48, 485.86it/s]
    diversity_sampling_exp_add2
826 diversity_sampling_exp_add2
827 3615it [00:59, 485.86it/s]
    diversity_sampling_exp_add2
828 diversity_sampling_exp_add2
829 4820it [01:06, 504.71it/s]
    diversity_sampling_exp_add2
830 diversity_sampling_exp_add2
831 diversity_sampling_exp_add2
832 4821it [01:22, 7.87it/s]
    diversity_sampling_exp_add2
833 6007it [01:24, 488.89it/s]
    diversity_sampling_exp_add2
834 diversity_sampling_exp_add2
835 diversity_sampling_exp_add2
836 6026it [01:39, 8.94it/s]
    diversity_sampling_exp_add2
837 7203it [01:42, 414.89it/s]
    diversity_sampling_exp_add2
838 diversity_sampling_exp_add2
839 diversity_sampling_exp_add2
840 diversity_sampling_exp_add2
841 8425it [02:00, 476.12it/s]
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842 diversity_sampling_exp_add2
843 diversity_sampling_exp_add2
844 diversity_sampling_exp_add2
845 9630it [02:18, 485.73it/s]
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846 diversity_sampling_exp_add2
847 9640it [02:29, 485.73it/s]
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848 diversity_sampling_exp_add2
849 10816it [02:36, 478.80it/s]
    diversity_sampling_exp_add2
850 diversity_sampling_exp_add2
851 diversity_sampling_exp_add2
852 10846it [02:51, 9.51it/s]
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854 diversity_sampling_exp_add2
855 diversity_sampling_exp_add2
856 12051it [03:09,  9.34it/s]
    diversity_sampling_exp_add2
857 13212it [03:11, 492.27it/s]
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858 diversity_sampling_exp_add2
859 diversity_sampling_exp_add2
860 diversity_sampling_exp_add2
861 14422it [03:29, 472.80it/s]
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863 diversity_sampling_exp_add2
864 diversity_sampling_exp_add2
865 15643it [03:47, 425.39it/s]
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866 diversity_sampling_exp_add2
867 15665it [03:59, 425.39it/s]
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868 diversity_sampling_exp_add2
869 16852it [04:06, 516.78it/s]
    diversity_sampling_exp_add2
870 diversity_sampling_exp_add2
871 diversity_sampling_exp_add2
872 16871it [04:21,  9.45it/s]
    diversity_sampling_exp_add2
873 18028it [04:23, 525.87it/s]
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875 diversity_sampling_exp_add2
876 diversity_sampling_exp_add2
877 19237it [04:40, 400.07it/s]
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878 diversity_sampling_exp_add2
879 diversity_sampling_exp_add2
880 diversity_sampling_exp_add2
881 20468it [04:58, 496.94it/s]
    diversity_sampling_exp_add2
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883 20485it [05:09, 496.94it/s]
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884 diversity_sampling_exp_add2
885 21641it [05:16, 480.80it/s]
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886 diversity_sampling_exp_add2
887 diversity_sampling_exp_add2
888 21691it [05:31, 10.79it/s]
    diversity_sampling_exp_add2
889 22875it [05:33, 490.56it/s]
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890 diversity_sampling_exp_add2
891 diversity_sampling_exp_add2
892 22896it [05:49, 8.87it/s]
    diversity_sampling_exp_add2
893 24070it [05:52, 489.12it/s]
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894 diversity_sampling_exp_add2
895 epoch number 19
896 diversity_sampling_exp_add2
897 diversity_sampling_exp_add2
898 24100it [06:09, 489.12it/s]
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899 diversity_sampling_exp_add2
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910          69565217]), 'recall': array([0.94039735, 0.16666667
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912          0.03333333, 0.69166667, 0.82580645, 0.
913          57142857])}
909 diversity new embedding 3684
910 diversity len embedding 3684
911 MLP_1h(
912     (l1): Linear(in_features=57, out_features=100,
913     bias=True)
913     (l2): Linear(in_features=100, out_features=9, bias
914     =True)
914 )
915 24100it [06:12, 64.78it/s]
916 [3583, 2685, 2848, 2668, 2604, 1807, 484, 2845, 2399
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922 3009, 2187, 748, 806, 2637, 930, 510, 595, 3245,
923 1070, 26, 1166, 1746, 1591, 2012, 904, 2564, 1376,
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923 Downloading data files: 100%|██████████| 1/1 [00:00  
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927 100%|██████████| 1/1 [00:00<00:00, 22.29it/s]  
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934 Extracting data files: 100%|██████████| 1/1 [00:00<  
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938 t is : 6
939 addlen is: 3000
940 noexp_df.shape[0] last 2948
941 unexplained dataset length is:
942 2948
943 embedding begin
944 trian and val dataset length: 240030
945 diversity_sampling_exp_add2
946 diversity_sampling_exp_add2
947 diversity_sampling_exp_add2
948 diversity_sampling_exp_add2
949 diversity_sampling_exp_add2
950 diversity_sampling_exp_add2
951 diversity_sampling_exp_add2
952 diversity_sampling_exp_add2
953 1143.0
954 ./embeddings/NEW_bertie_embeddings_textattack/bert-
  base-uncased-MNLI_subset_1.pt
955 Found cached dataset csv (C:/Users/admin/.cache/
  huggingface/datasets/csv/default-de9667a32e20cab2/0.
  0.0/
  6954658bab30a358235fa864b05cf819af0e179325c740e4bc85
  3bcc7ec513e1)
956 100%|██████████| 1/1 [00:00<00:00, 95.89it/s]
957 test len 33705
958 Downloading data files: 100%|██████████| 1/1 [00:00
  <?, ?it/s]
959 Extracting data files: 100%|██████████| 1/1 [00:00<
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960 Generating train split: 0 examples [00:00, ?
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  3bcc7ec513e1...
961  0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
  downloaded and prepared to C:/Users/admin/.cache/
  huggingface/datasets/csv/default-e05dc50e0d0c9eaa/0.
```

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961 0.0/
  6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
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  data.
962 100%|██████████| 1/1 [00:00<00:00, 40.27it/s]
963 preprocess_samples begin ...
964 uncertainty shape: 1530
965 ./test_embeddings/NEW_bertie_embeddings_textattack/
  bert-base-uncased-MNLI_subset_1.pt
966 classify begin
967 11504
968 0%|          | 0/20 [00:00<?, ?it/s]
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970 1250it [00:18, 550.46it/s]
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973 diversity_sampling_exp_add2
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977 2573it [00:49, 9.93it/s]
  diversity_sampling_exp_add2
978 3837it [00:51, 549.76it/s]
  diversity_sampling_exp_add2
979 diversity_sampling_exp_add2
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981 diversity_sampling_exp_add2
982 5120it [01:08, 554.44it/s]
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985 5145it [01:22, 12.30it/s]
  diversity_sampling_exp_add2
986 6368it [01:24, 577.30it/s]
  diversity_sampling_exp_add2
987 diversity_sampling_exp_add2
988 diversity_sampling_exp_add2
989 6430it [01:38, 577.30it/s]
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990 7665it [01:41, 549.66it/s]
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992 diversity_sampling_exp_add2
993 diversity_sampling_exp_add2
994 8947it [01:57, 535.65it/s]
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996 diversity_sampling_exp_add2
997 9003it [02:11, 13.41it/s]
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998 10242it [02:13, 527.58it/s]
    diversity_sampling_exp_add2
999 diversity_sampling_exp_add2
1000 diversity_sampling_exp_add2
1001 10288it [02:28, 527.58it/s]
    diversity_sampling_exp_add2
1002 11567it [02:32, 349.43it/s]
    diversity_sampling_exp_add2
1003 diversity_sampling_exp_add2
1004 diversity_sampling_exp_add2
1005 diversity_sampling_exp_add2
1006 12819it [02:50, 524.45it/s]
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1008 diversity_sampling_exp_add2
1009 diversity_sampling_exp_add2
1010 14116it [03:06, 513.02it/s]
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1011 diversity_sampling_exp_add2
1012 diversity_sampling_exp_add2
1013 14146it [03:18, 513.02it/s]
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1014 15415it [03:22, 498.63it/s]
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1016 diversity_sampling_exp_add2
1017 diversity_sampling_exp_add2
1018 16651it [03:38, 591.36it/s]
    diversity_sampling_exp_add2
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1030 20541it [04:27, 575.75it/s]
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1032 diversity_sampling_exp_add2
1033 20576it [04:38, 575.75it/s]
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1034 21846it [04:43, 547.22it/s]
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1038 23102it [04:59, 512.83it/s]
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1041 diversity_sampling_exp_add2
1042 24389it [05:15, 536.91it/s]
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1043 diversity_sampling_exp_add2
1044 diversity_sampling_exp_add2
1045 24434it [05:28, 536.91it/s]
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1046 25705it [05:31, 569.28it/s]
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1047 diversity_sampling_exp_add2
1048 epoch number 19
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1049 diversity_sampling_exp_add2
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1062 diversity new embedding 2948
1063 diversity len embedding 2948
1064 MLP_1h(
1065     (l1): Linear(in_features=63, out_features=100,
        bias=True)
1066     (l2): Linear(in_features=100, out_features=9,
        bias=True)
1067 )
1068 25720it [05:49, 73.61it/s]
1069 [1849, 2220, 1807, 92, 808, 2366, 2030, 1340, 2508
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default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-7f88981331939a65/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1074 100%|██████████| 1/1 [00:00<00:00, 71.47it/s]  
1075 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
7f88981331939a65/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this
```

```
1075 data.
1076 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1077 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-1afeda1049f76a85/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1078 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 165.47it/s]
1079 100%|██████████| 1/1 [00:00<00:00, 58.89it/s]
1080 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
1afeda1049f76a85/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1081 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1082 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-61700b22fb97a0f0/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1083 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 144.01it/s]
1084 100%|██████████| 1/1 [00:00<00:00, 77.23it/s]
1085 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
61700b22fb97a0f0/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1086 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1087 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 66.93it/s]
1088 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-9122d671ec39e8e5/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
```

```
1088 53bcc7ec513e1...
1089 100%|██████████| 1/1 [00:00<00:00, 90.79it/s]
1090 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
9122d671ec39e8e5/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1091 t is : 7
1092 addlen is: 3500
1093 noexp_df.shape[0] last 2359
1094 unexplained dataset length is:
1095 2359
1096 embedding begin
1097 trian and val dataset length: 277380
1098 diversity_sampling_exp_add2
1099 diversity_sampling_exp_add2
1100 diversity_sampling_exp_add2
1101 diversity_sampling_exp_add2
1102 diversity_sampling_exp_add2
1103 diversity_sampling_exp_add2
1104 diversity_sampling_exp_add2
1105 diversity_sampling_exp_add2
1106 1206.0
1107 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
1108 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-de9667a32e20cab2/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1)
1109 100%|██████████| 1/1 [00:00<00:00, 87.53it/s]
1110 test len 36915
1111 Downloading data files: 100%|██████████| 1/1 [00:00
<00:00, 967.32it/s]
1112 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 167.97it/s]
1113 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-e6ffba5702832a19/0.0.0/
```

```
1113      6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
      53bcc7ec513e1...  
1114 100% [██████] | 1/1 [00:00<00:00, 55.73it/s]  
1115 Dataset csv downloaded and prepared to C:/Users/  
      admin/.cache/huggingface/datasets/csv/default-  
      e6ffba5702832a19/0.0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
      53bcc7ec513e1. Subsequent calls will reuse this  
      data.  
1116 preprocess_samples begin ...  
1117 uncertainty shape: 1530  
1118 ./test_embeddings/NEW_bertie_embeddings_textattack/  
      bert-base-uncased-MNLI_subset_1.pt  
1119 classify begin  
1120 12093  
1121 0% | 0/20 [00:00<?, ?it/s]  
      diversity_sampling_exp_add2  
1122 diversity_sampling_exp_add2  
1123 1312it [00:18, 524.68it/s]  
      diversity_sampling_exp_add2  
1124 diversity_sampling_exp_add2  
1125 diversity_sampling_exp_add2  
1126 diversity_sampling_exp_add2  
1127 2688it [00:34, 570.58it/s]  
      diversity_sampling_exp_add2  
1128 diversity_sampling_exp_add2  
1129 diversity_sampling_exp_add2  
1130 diversity_sampling_exp_add2  
1131 4059it [00:50, 564.29it/s]  
      diversity_sampling_exp_add2  
1132 diversity_sampling_exp_add2  
1133 diversity_sampling_exp_add2  
1134 4072it [01:04, 10.84it/s]  
      diversity_sampling_exp_add2  
1135 5424it [01:06, 573.35it/s]  
      diversity_sampling_exp_add2  
1136 diversity_sampling_exp_add2  
1137 diversity_sampling_exp_add2  
1138 diversity_sampling_exp_add2  
1139 6763it [01:22, 569.23it/s]
```

```
1139 diversity_sampling_exp_add2
1140 diversity_sampling_exp_add2
1141 diversity_sampling_exp_add2
1142 6786it [01:36, 11.97it/s]
    diversity_sampling_exp_add2
1143 8124it [01:38, 543.31it/s]
    diversity_sampling_exp_add2
1144 diversity_sampling_exp_add2
1145 diversity_sampling_exp_add2
1146 diversity_sampling_exp_add2
1147 9452it [01:54, 528.80it/s]
    diversity_sampling_exp_add2
1148 diversity_sampling_exp_add2
1149 diversity_sampling_exp_add2
1150 diversity_sampling_exp_add2
1151 10796it [02:10, 585.40it/s]
    diversity_sampling_exp_add2
1152 diversity_sampling_exp_add2
1153 diversity_sampling_exp_add2
1154 10857it [02:25, 14.43it/s]
    diversity_sampling_exp_add2
1155 12197it [02:27, 536.75it/s]
    diversity_sampling_exp_add2
1156 diversity_sampling_exp_add2
1157 diversity_sampling_exp_add2
1158 diversity_sampling_exp_add2
1159 13538it [02:44, 515.78it/s]
    diversity_sampling_exp_add2
1160 diversity_sampling_exp_add2
1161 diversity_sampling_exp_add2
1162 diversity_sampling_exp_add2
1163 14893it [03:00, 581.91it/s]
    diversity_sampling_exp_add2
1164 diversity_sampling_exp_add2
1165 diversity_sampling_exp_add2
1166 14927it [03:14, 581.91it/s]
    diversity_sampling_exp_add2
1167 16238it [03:17, 539.99it/s]
    diversity_sampling_exp_add2
1168 diversity_sampling_exp_add2
1169 diversity_sampling_exp_add2
```

```
1170 diversity_sampling_exp_add2
1171 17603it [03:34, 543.91it/s]
    diversity_sampling_exp_add2
1172 diversity_sampling_exp_add2
1173 17641it [03:44, 543.91it/s]
    diversity_sampling_exp_add2
1174 diversity_sampling_exp_add2
1175 18974it [03:50, 565.05it/s]
    diversity_sampling_exp_add2
1176 diversity_sampling_exp_add2
1177 diversity_sampling_exp_add2
1178 18998it [04:04, 565.05it/s]
    diversity_sampling_exp_add2
1179 20325it [04:06, 551.42it/s]
    diversity_sampling_exp_add2
1180 diversity_sampling_exp_add2
1181 diversity_sampling_exp_add2
1182 diversity_sampling_exp_add2
1183 21676it [04:22, 551.41it/s]
    diversity_sampling_exp_add2
1184 diversity_sampling_exp_add2
1185 diversity_sampling_exp_add2
1186 21712it [04:34, 551.41it/s]
    diversity_sampling_exp_add2
1187 23065it [04:39, 549.32it/s]
    diversity_sampling_exp_add2
1188 diversity_sampling_exp_add2
1189 diversity_sampling_exp_add2
1190 diversity_sampling_exp_add2
1191 24405it [04:55, 578.38it/s]
    diversity_sampling_exp_add2
1192 diversity_sampling_exp_add2
1193 diversity_sampling_exp_add2
1194 diversity_sampling_exp_add2
1195 25765it [05:11, 548.66it/s]
    diversity_sampling_exp_add2
1196 diversity_sampling_exp_add2
1197 diversity_sampling_exp_add2
1198 25784it [05:26, 12.81it/s]
    diversity_sampling_exp_add2
1199 27101it [05:28, 617.20it/s]
```

```
1199 diversity_sampling_exp_add2
1200 diversity_sampling_exp_add2
1201 epoch number 19
1202 diversity_sampling_exp_add2
1203 diversity_sampling_exp_add2
1204 27140it [05:44, 617.20it/s]
    diversity_sampling_exp_add2
1205 diversity_sampling_exp_add2
1206 global t is : 7
1207 test epoch results {'accuracy': 0.6405228758169934
, 'f1_weighted': 0.6230418772607409, 'f1_macro': 0.
5593152519140234, 'f1': array([0.87564767, 0.
41935484, 0.58947368, 0.38372093, 0.68421053,
1208          0.10526316, 0.72507553, 0.63810392, 0.
61298701]), 'precision': array([0.88481675, 0.52
, 0.60869565, 0.6875      , 0.70098039,
1209          0.24      , 0.76433121, 0.54263566, 0.
62433862]), 'recall': array([0.86666667, 0.35135135
, 0.57142857, 0.26612903, 0.6682243 ,
1210          0.06741573, 0.68965517, 0.77433628, 0.
60204082])}
1211 val epoch results {'accuracy': 0.6492537313432836
, 'f1_weighted': 0.6286707328952346, 'f1_macro': 0.
5418386477113606, 'f1': array([0.88252149, 0.
27027027, 0.48571429, 0.46451613, 0.68656716,
1212          0.1025641 , 0.6692607 , 0.6352657 , 0.
67986799]), 'precision': array([0.83243243, 0.
55555556, 0.53125   , 0.65454545, 0.68047337,
1213          0.36363636, 0.72268908, 0.54906054, 0.
70068027]), 'recall': array([0.93902439, 0.17857143
, 0.44736842, 0.36      , 0.69277108,
1214          0.05970149, 0.62318841, 0.75358166, 0.
66025641])}
1215 27140it [05:45, 78.63it/s]
1216 diversity new embedding 2359
1217 diversity len embedding 2359
1218 MLP_1h(
1219     (l1): Linear(in_features=69, out_features=100,
        bias=True)
1220     (l2): Linear(in_features=100, out_features=9,
        bias=True)
```

1221 )  
1222 [1273, 987, 887, 952, 1267, 2070, 1607, 910, 543,  
1039, 230, 1562, 154, 371, 117, 1963, 2226, 473,  
698, 1324, 378, 1234, 322, 1183, 1760, 445, 848,  
1547, 1068, 1578, 1046, 78, 1913, 718, 583, 2265,  
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1533, 845, 1711, 39, 784, 1666, 604, 2251, 656, 242  
, 410, 1051, 2274, 1912, 1013, 2019, 1747, 1926,  
1355, 1688, 1942, 2352, 511, 1818, 196, 2293, 1179  
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, 1365, 2146, 447, 1527, 2193, 1342, 323, 1943, 728  
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1725, 506, 1698, 388, 1154, 1336, 556, 133, 1386,  
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1502, 654, 1780, 399, 217, 747, 1519, 1634, 1950,  
1570, 10, 2325, 202, 151, 1300, 2152, 895, 1896,  
2259, 2028, 2035, 1537, 1601, 1941, 2334, 152, 283  
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, 1219, 73, 723, 1415, 1809, 1678, 479, 441, 106,  
2263, 1290, 1733, 1160, 645, 498, 1194, 1433, 652,  
2005, 883, 1667, 788, 1600, 2190, 1010, 1957, 2278  
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977, 2124, 2121, 1308, 807, 38, 874, 240, 1080, 471  
, 1033, 1372, 377, 890, 986, 1642, 1084, 325, 1573  
, 184, 1801, 398, 2347, 270, 1783, 1378, 248, 1118  
, 1332, 1881, 871, 1027, 1083, 90, 2241, 1468, 610  
, 1672, 1606, 2080, 375, 2353, 1560, 896, 1712,  
1900, 1647, 1618, 806, 34, 1532, 1548, 370, 1853,  
75, 352, 1677, 1470, 983, 673, 2243, 1797, 1049,  
1287, 253, 2007, 1516, 87, 1249, 354, 1825, 2176,  
2271, 2248, 1972, 1643, 2346, 783, 2234, 1902, 2261

```
1222 , 897, 1001, 1455, 1793, 594, 1146, 306, 1762, 2109  
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, 1742, 1284, 1623, 2217, 574, 167, 616, 1150, 2182  
, 1079, 2304, 2224, 817, 1833, 1594, 847, 1307,  
1221, 1882, 2340, 1928, 1266, 2358, 751, 1652, 2072  
, 189, 1422, 700, 2344, 1854, 1930, 1247, 2128,  
1968, 608, 1343, 209, 1738, 1960, 112, 1757, 1023,  
36, 2117, 670, 153, 387, 1683, 1935, 1031, 781,  
1741, 108, 2192, 861, 1661, 1580, 2216, 934, 30,  
417, 2295, 2282, 749, 868, 169, 1345, 235, 1726,  
709, 344, 336, 1755, 564, 818, 1632, 17, 1176, 869  
, 143, 1369, 1789, 9, 664, 1581, 617, 147, 1514,  
674, 1271, 529]  
1223 ['water has been restored\n', 'people are being  
warned\n']  
1224 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1225 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 167.22it/s]  
1226 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-38e266b2f9d85607/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1227 100%|██████████| 1/1 [00:00<00:00, 62.49it/s]  
1228 Dataset csv downloaded and prepared to C:/Users/  
admin/.cache/huggingface/datasets/csv/default-  
38e266b2f9d85607/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1. Subsequent calls will reuse this  
data.  
1229 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]  
1230 Extracting data files: 100%|██████████| 1/1 [00:00<  
00:00, 143.33it/s]  
1231 Generating train split: 0 examples [00:00, ?  
examples/s]Downloading and preparing dataset csv/  
default to C:/Users/admin/.cache/huggingface/  
datasets/csv/default-94a879832effd060/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
```

```
1231 53bcc7ec513e1...
1232 0% | 0/1 [00:00<?, ?it/s] Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-94a879832effd060/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1233 100%|██████████| 1/1 [00:00<00:00, 43.62it/s]
1234 Downloading data files: 100%|██████████| 1/1 [00:00
<?, ?it/s]
1235 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-b87b32ad7550c2cd/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1236 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 100.30it/s]
1237 100%|██████████| 1/1 [00:00<00:00, 62.84it/s]
1238 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
b87b32ad7550c2cd/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1239 Downloading data files: 100%|██████████| 1/1 [00:00
<?, ?it/s]
1240 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-43f175db0a4cf596/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1241 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 77.23it/s]
1242 100%|██████████| 1/1 [00:00<00:00, 91.73it/s]
1243 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
43f175db0a4cf596/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
```

```
1244 t is : 8
1245 addlen is: 4000
1246 noexp_df.shape[0] last 1888
1247 unexplained dataset length is:
1248 1888
1249 embedding begin
1250 trian and val dataset length: 312750
1251 diversity_sampling_exp_add2
1252 diversity_sampling_exp_add2
1253 diversity_sampling_exp_add2
1254 diversity_sampling_exp_add2
1255 diversity_sampling_exp_add2
1256 diversity_sampling_exp_add2
1257 diversity_sampling_exp_add2
1258 diversity_sampling_exp_add2
1259 1251.0
1260 ./embeddings/NEW_bertie_embeddings_textattack/bert-
base-uncased-MNLI_subset_1.pt
1261 Found cached dataset csv (C:/Users/admin/.cache/
huggingface/datasets/csv/default-de9667a32e20cab2/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1)
1262 100%|██████████| 1/1 [00:00<00:00, 33.44it/s]
1263 test len 40125
1264 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-cd9e6d14fc8025e4/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1265 Downloading data files: 100%|██████████| 1/1 [00:00
<, ?it/s]
1266 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 52.80it/s]
1267 100%|██████████| 1/1 [00:00<00:00, 52.81it/s]
1268 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
cd9e6d14fc8025e4/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
```

```
1269 preprocess_samples begin ...
1270 uncertainty shape: 1530
1271 ./test_embeddings/NEW_bertie_embeddings_textattack/
    bert-base-uncased-MNLI_subset_1.pt
1272 classify begin
1273 12564
1274 0%|          | 0/20 [00:00<?, ?it/s]
    diversity_sampling_exp_add2
1275 diversity_sampling_exp_add2
1276 1403it [00:12, 585.77it/s]
    diversity_sampling_exp_add2
1277 diversity_sampling_exp_add2
1278 diversity_sampling_exp_add2
1279 1408it [00:23, 585.77it/s]
    diversity_sampling_exp_add2
1280 2785it [00:29, 545.23it/s]
    diversity_sampling_exp_add2
1281 diversity_sampling_exp_add2
1282 diversity_sampling_exp_add2
1283 diversity_sampling_exp_add2
1284 4167it [00:45, 534.10it/s]
    diversity_sampling_exp_add2
1285 diversity_sampling_exp_add2
1286 diversity_sampling_exp_add2
1287 diversity_sampling_exp_add2
1288 5595it [01:02, 545.18it/s]
    diversity_sampling_exp_add2
1289 diversity_sampling_exp_add2
1290 diversity_sampling_exp_add2
1291 5632it [01:13, 545.18it/s]
    diversity_sampling_exp_add2
1292 6994it [01:19, 566.48it/s]
    diversity_sampling_exp_add2
1293 diversity_sampling_exp_add2
1294 diversity_sampling_exp_add2
1295 7041it [01:33, 12.68it/s]
    diversity_sampling_exp_add2
1296 8438it [01:36, 562.82it/s]
    diversity_sampling_exp_add2
1297 diversity_sampling_exp_add2
1298 diversity_sampling_exp_add2
```

```
1299 diversity_sampling_exp_add2
1300 9809it [01:52, 551.74it/s]
    diversity_sampling_exp_add2
1301 diversity_sampling_exp_add2
1302 diversity_sampling_exp_add2
1303 9856it [02:03, 551.74it/s]
    diversity_sampling_exp_add2
1304 11253it [02:09, 522.80it/s]
    diversity_sampling_exp_add2
1305 diversity_sampling_exp_add2
1306 diversity_sampling_exp_add2
1307 diversity_sampling_exp_add2
1308 12653it [02:26, 547.85it/s]
    diversity_sampling_exp_add2
1309 diversity_sampling_exp_add2
1310 diversity_sampling_exp_add2
1311 diversity_sampling_exp_add2
1312 14064it [02:43, 558.60it/s]
    diversity_sampling_exp_add2
1313 diversity_sampling_exp_add2
1314 diversity_sampling_exp_add2
1315 14080it [02:53, 558.60it/s]
    diversity_sampling_exp_add2
1316 15456it [02:59, 579.24it/s]
    diversity_sampling_exp_add2
1317 diversity_sampling_exp_add2
1318 diversity_sampling_exp_add2
1319 15488it [03:13, 579.24it/s]
    diversity_sampling_exp_add2
1320 16891it [03:17, 493.60it/s]
    diversity_sampling_exp_add2
1321 diversity_sampling_exp_add2
1322 diversity_sampling_exp_add2
1323 diversity_sampling_exp_add2
1324 18256it [03:34, 543.31it/s]
    diversity_sampling_exp_add2
1325 diversity_sampling_exp_add2
1326 diversity_sampling_exp_add2
1327 diversity_sampling_exp_add2
1328 19708it [03:51, 541.97it/s]
    diversity_sampling_exp_add2
```

```
1329 diversity_sampling_exp_add2
1330 diversity_sampling_exp_add2
1331 19712it [04:03, 541.97it/s]
    diversity_sampling_exp_add2
1332 21072it [04:07, 529.60it/s]
    diversity_sampling_exp_add2
1333 diversity_sampling_exp_add2
1334 diversity_sampling_exp_add2
1335 diversity_sampling_exp_add2
1336 22478it [04:24, 548.38it/s]
    diversity_sampling_exp_add2
1337 diversity_sampling_exp_add2
1338 diversity_sampling_exp_add2
1339 diversity_sampling_exp_add2
1340 23906it [04:41, 512.62it/s]
    diversity_sampling_exp_add2
1341 diversity_sampling_exp_add2
1342 diversity_sampling_exp_add2
1343 23936it [04:53, 512.62it/s]
    diversity_sampling_exp_add2
1344 25305it [04:57, 532.78it/s]
    diversity_sampling_exp_add2
1345 diversity_sampling_exp_add2
1346 diversity_sampling_exp_add2
1347 diversity_sampling_exp_add2
1348 26746it [05:15, 419.33it/s]
    diversity_sampling_exp_add2
1349 diversity_sampling_exp_add2
1350 diversity_sampling_exp_add2
1351 diversity_sampling_exp_add2
1352 28148it [05:32, 610.88it/s]
    diversity_sampling_exp_add2
1353 diversity_sampling_exp_add2
1354 epoch number 19
1355 diversity_sampling_exp_add2
1356 diversity_sampling_exp_add2
1357 28160it [05:43, 610.88it/s]
    diversity_sampling_exp_add2
1358 diversity_sampling_exp_add2
1359 global t is : 8
1360 test epoch results {'accuracy': 0.6562091503267974}
```

```

1360 , 'f1_weighted': 0.6468162727761407, 'f1_macro': 0.
      5947510202527857, 'f1': array([0.86458333, 0.
      44067797, 0.60416667, 0.46632124, 0.70909091,
1361     0.25757576, 0.72891566, 0.64312977, 0.
      63829787]), 'precision': array([0.87830688, 0.
      59090909, 0.61702128, 0.65217391, 0.69026549,
1362     0.39534884, 0.76582278, 0.56543624, 0.
      66666667]), 'recall': array([0.85128205, 0.35135135
      , 0.59183673, 0.36290323, 0.72897196,
1363     0.19101124, 0.6954023 , 0.74557522, 0.
      6122449 ])}
1364 val epoch results {'accuracy': 0.6514788169464428
      , 'f1_weighted': 0.6389333236511939, 'f1_macro': 0.
      5635573364423307, 'f1': array([0.88022284, 0.
      21621622, 0.52777778, 0.45121951, 0.65168539,
1365     0.35714286, 0.67910448, 0.65018541, 0.
      65846154]), 'precision': array([0.83157895, 0.5
      , 0.59375 , 0.61666667, 0.63043478,
1366     0.47619048, 0.728 , 0.58836689, 0.
      65644172]), 'recall': array([0.93491124, 0.13793103
      , 0.475 , 0.35576923, 0.6744186 ,
1367     0.28571429, 0.63636364, 0.72651934, 0.
      66049383])}
1368 28160it [05:49, 80.53it/s]
1369 diversity new embedding 1888
1370 diversity len embedding 1888
1371 MLP_1h(
1372     (l1): Linear(in_features=75, out_features=100,
      bias=True)
1373     (l2): Linear(in_features=100, out_features=9,
      bias=True)
1374 )
1375 [1677, 1404, 1784, 948, 1690, 1391, 1315, 353, 1877
      , 670, 633, 431, 725, 784, 652, 1831, 151, 1067,
      1409, 1028, 119, 86, 477, 409, 18, 873, 619, 936,
      1371, 993, 250, 823, 7, 174, 868, 107, 1539, 199,
      1037, 741, 1441, 800, 1160, 354, 1216, 19, 659,
      1011, 1381, 1493, 215, 165, 239, 1246, 1535, 1144,
      1343, 1548, 1355, 1858, 1502, 327, 1029, 152, 445,
      1265, 994, 1592, 207, 779, 816, 1815, 1329, 631,
      330, 1735, 337, 1483, 895, 1349, 283, 1525, 930,
```

```
1375 314, 564, 312, 209, 981, 32, 411, 1823, 1719, 826,  
1876, 39, 1674, 335, 924, 1170, 1643, 466, 1119,  
358, 124, 1526, 1754, 1033, 1007, 565, 684, 191,  
1262, 214, 78, 377, 963, 369, 1740, 612, 13, 397,  
680, 1649, 1443, 655, 938, 1093, 802, 350, 205,  
1156, 514, 1470, 1560, 1513, 850, 1015, 238, 887,  
1154, 759, 1295, 1308, 1269, 1268, 419, 22, 132,  
1748, 841, 1424, 1682, 1662, 170, 1558, 1196, 830,  
601, 1710, 1709, 1103, 1855, 1266, 175, 529, 1325,  
696, 1284, 40, 1013, 1435, 1260, 804, 535, 1562,  
992, 901, 1342, 649, 1694, 542, 322, 733, 1089,  
1105, 435, 1689, 1019, 561, 1605, 852, 920, 1758,  
357, 1142, 1177, 1477, 487, 1068, 1167, 1542, 591,  
672, 1201, 1746, 368, 848, 1576, 947, 1264, 318,  
736, 896, 693, 1396, 1881, 780, 5, 1721, 1614, 605  
, 881, 94, 683, 730, 1531, 1341, 1490, 31, 195, 417  
, 728, 630, 540, 130, 57, 1752, 643, 1158, 1504, 65  
, 155, 1014, 1515, 1608, 1073, 1856, 1303, 1162,  
386, 27, 576, 1666, 1552, 1601, 1405, 732, 58, 808  
, 644, 545, 984, 940, 812, 1775, 786, 298, 791,  
1882, 300, 1053, 1497, 278, 1072, 888, 110, 820,  
663, 217, 959, 1291, 972, 426, 1104, 890, 1495, 844  
, 1654, 1171, 807, 243, 849, 681, 1846, 389, 333,  
530, 1225, 906, 1849, 1114, 114, 1517, 77, 958,  
1607, 997, 1364, 645, 448, 502, 87, 825, 942, 1182  
, 1593, 926, 1489, 1516, 1181, 1867, 179, 1787,  
1461, 661, 709, 1532, 970, 112, 12, 1314, 1115,  
1320, 1113, 853, 453, 414, 153, 856, 140, 1241, 166  
, 980, 1675, 1132, 855, 698, 515, 1378, 528, 1722,  
929, 290, 1131, 1321, 187, 827, 625, 147, 966, 810  
, 71, 1176, 1149, 1678, 384, 1163, 1626, 295, 1209  
, 511, 30, 1159, 222, 16, 1488, 1663]  
1376 ['people are providing emotional support \n',  
'keeping others in their thoughts']  
1377 Downloading and preparing dataset csv/default to C  
:/Users/admin/.cache/huggingface/datasets/csv/  
default-f514be728412fb5a/0.0.0/  
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
53bcc7ec513e1...  
1378 Downloading data files: 100%|██████████| 1/1 [00:00  
<, ?it/s]
```

```
1379 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 143.33it/s]
1380 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-f514be728412fb5a/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1381 100%|██████████| 1/1 [00:00<00:00, 33.44it/s]
1382 Downloading data files: 100%|██████████| 1/1 [00:00
<?, ?it/s]
1383 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-3f943c5de344edc6/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1384 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 154.87it/s]
1385 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-3f943c5de344edc6/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1386 100%|██████████| 1/1 [00:00<00:00, 28.67it/s]
1387 Downloading data files: 100%|██████████| 1/1 [00:00
<?, ?it/s]
1388 Extracting data files: 100%|██████████| 1/1 [00:00<00:00, 111.48it/s]
1389 Downloading and preparing dataset csv/default to C
:/Users/admin/.cache/huggingface/datasets/csv/
default-424f897e0e98f90e/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1390 100%|██████████| 1/1 [00:00<00:00, 77.17it/s]
1391 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
424f897e0e98f90e/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
```

```
1391 53bcc7ec513e1. Subsequent calls will reuse this  
      data.  
1392 Downloading data files: 100%|██████████| 1/1 [00:00  
      <?, ?it/s]  
1393 Extracting data files: 100%|██████████| 1/1 [00:00<  
      00:00, 57.53it/s]  
1394 Downloading and preparing dataset csv/default to C  
      :/Users/admin/.cache/huggingface/datasets/csv/  
      default-88cc2c0f66e3f274/0.0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
      53bcc7ec513e1...  
1395 100%|██████████| 1/1 [00:00<00:00, 91.52it/s]  
1396 Dataset csv downloaded and prepared to C:/Users/  
      admin/.cache/huggingface/datasets/csv/default-  
      88cc2c0f66e3f274/0.0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
      53bcc7ec513e1. Subsequent calls will reuse this  
      data.  
1397 t is : 9  
1398 addlen is: 4500  
1399 noexp_df.shape[0] last 1511  
1400 unexplained dataset length is:  
1401 1511  
1402 embedding begin  
1403 trian and val dataset length: 347490  
1404 diversity_sampling_exp_add2  
1405 diversity_sampling_exp_add2  
1406 diversity_sampling_exp_add2  
1407 diversity_sampling_exp_add2  
1408 diversity_sampling_exp_add2  
1409 diversity_sampling_exp_add2  
1410 diversity_sampling_exp_add2  
1411 diversity_sampling_exp_add2  
1412 1287.0  
1413 ./embeddings/NEW_bertie_embeddings_textattack/bert-  
      base-uncased-MNLI_subset_1.pt  
1414 Found cached dataset csv (C:/Users/admin/.cache/  
      huggingface/datasets/csv/default-de9667a32e20cab2/0  
      .0.0/  
      6954658bab30a358235fa864b05cf819af0e179325c740e4bc8  
      53bcc7ec513e1)
```

```
1415 100%|██████████| 1/1 [00:00<00:00, 32.71it/s]
1416 test len 43335
1417 Downloading and preparing dataset csv/default to C
  :/Users/admin/.cache/huggingface/datasets/csv/
  default-f43e1d299ebddc21/0.0.0/
  6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
  53bcc7ec513e1...
1418 Downloading data files: 100%|██████████| 1/1 [00:00
  <, ?it/s]
1419 Extracting data files: 100%|██████████| 1/1 [00:00<
  00:00, 76.29it/s]
1420 100%|██████████| 1/1 [00:00<00:00, 82.49it/s]
1421 Dataset csv downloaded and prepared to C:/Users/
  admin/.cache/huggingface/datasets/csv/default-
  f43e1d299ebddc21/0.0.0/
  6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
  53bcc7ec513e1. Subsequent calls will reuse this
  data.
1422 preprocess_samples begin ...
1423 uncertainty shape: 1530
1424 ./test_embeddings/NEW_bertie_embeddings_textattack/
  bert-base-uncased-MNLI_subset_1.pt
1425 classify begin
1426 12941
1427 0%|          | 0/20 [00:00<?, ?it/s]
  diversity_sampling_exp_add2
1428 diversity_sampling_exp_add2
1429 1433it [00:19, 722.56it/s]
  diversity_sampling_exp_add2
1430 diversity_sampling_exp_add2
1431 diversity_sampling_exp_add2
1432 diversity_sampling_exp_add2
1433 2836it [00:33, 737.28it/s]
  diversity_sampling_exp_add2
1434 diversity_sampling_exp_add2
1435 diversity_sampling_exp_add2
1436 2897it [00:47, 18.42it/s]
  diversity_sampling_exp_add2
1437 4332it [00:49, 768.27it/s]
  diversity_sampling_exp_add2
1438 diversity_sampling_exp_add2
```

```
1439 diversity_sampling_exp_add2
1440 diversity_sampling_exp_add2
1441 5764it [01:04, 739.63it/s]
    diversity_sampling_exp_add2
1442 diversity_sampling_exp_add2
1443 diversity_sampling_exp_add2
1444 5793it [01:18, 16.20it/s]
    diversity_sampling_exp_add2
1445 7222it [01:20, 765.14it/s]
    diversity_sampling_exp_add2
1446 diversity_sampling_exp_add2
1447 diversity_sampling_exp_add2
1448 diversity_sampling_exp_add2
1449 8675it [01:35, 717.78it/s]
    diversity_sampling_exp_add2
1450 diversity_sampling_exp_add2
1451 diversity_sampling_exp_add2
1452 diversity_sampling_exp_add2
1453 10082it [01:50, 695.63it/s]
    diversity_sampling_exp_add2
1454 diversity_sampling_exp_add2
1455 diversity_sampling_exp_add2
1456 diversity_sampling_exp_add2
1457 11537it [02:05, 719.30it/s]
    diversity_sampling_exp_add2
1458 diversity_sampling_exp_add2
1459 diversity_sampling_exp_add2
1460 11585it [02:18, 17.90it/s]
    diversity_sampling_exp_add2
1461 12976it [02:20, 748.88it/s]
    diversity_sampling_exp_add2
1462 diversity_sampling_exp_add2
1463 diversity_sampling_exp_add2
1464 diversity_sampling_exp_add2
1465 14457it [02:35, 730.55it/s]
    diversity_sampling_exp_add2
1466 diversity_sampling_exp_add2
1467 diversity_sampling_exp_add2
1468 diversity_sampling_exp_add2
1469 15843it [02:51, 698.92it/s]
    diversity_sampling_exp_add2
```

```
1470 diversity_sampling_exp_add2
1471 diversity_sampling_exp_add2
1472 diversity_sampling_exp_add2
1473 17361it [03:07, 750.30it/s]
    diversity_sampling_exp_add2
1474 diversity_sampling_exp_add2
1475 diversity_sampling_exp_add2
1476 diversity_sampling_exp_add2
1477 18770it [03:22, 716.20it/s]
    diversity_sampling_exp_add2
1478 diversity_sampling_exp_add2
1479 diversity_sampling_exp_add2
1480 18825it [03:36, 17.92it/s]
    diversity_sampling_exp_add2
1481 20235it [03:38, 629.74it/s]
    diversity_sampling_exp_add2
1482 diversity_sampling_exp_add2
1483 diversity_sampling_exp_add2
1484 diversity_sampling_exp_add2
1485 21657it [03:53, 721.19it/s]
    diversity_sampling_exp_add2
1486 diversity_sampling_exp_add2
1487 diversity_sampling_exp_add2
1488 21721it [04:06, 18.95it/s]
    diversity_sampling_exp_add2
1489 23158it [04:08, 749.84it/s]
    diversity_sampling_exp_add2
1490 diversity_sampling_exp_add2
1491 diversity_sampling_exp_add2
1492 diversity_sampling_exp_add2
1493 24590it [04:22, 730.38it/s]
    diversity_sampling_exp_add2
1494 diversity_sampling_exp_add2
1495 diversity_sampling_exp_add2
1496 24617it [04:36, 16.17it/s]
    diversity_sampling_exp_add2
1497 25993it [04:38, 650.98it/s]
    diversity_sampling_exp_add2
1498 diversity_sampling_exp_add2
1499 diversity_sampling_exp_add2
1500 diversity_sampling_exp_add2
```

```
1501 27494it [04:54, 775.32it/s]
    diversity_sampling_exp_add2
1502 diversity_sampling_exp_add2
1503 diversity_sampling_exp_add2
1504 27513it [05:07, 16.14it/s]
    diversity_sampling_exp_add2
1505 28928it [05:09, 751.86it/s]
    diversity_sampling_exp_add2
1506 diversity_sampling_exp_add2
1507 epoch number 19
1508 diversity_sampling_exp_add2
1509 diversity_sampling_exp_add2
1510 diversity_sampling_exp_add2
1511 diversity_sampling_exp_add2
1512 global t is : 9
1513 test epoch results {'accuracy': 0.6535947712418301
, 'f1_weighted': 0.6430359480106419, 'f1_macro': 0.
5892514999426652, 'f1': array([0.86597938, 0.
4057971 , 0.62222222, 0.43678161, 0.70669746,
1514      0.27536232, 0.72463768, 0.64606742, 0.
61971831]), 'precision': array([0.87046632, 0.4375
, 0.68292683, 0.76      , 0.69863014,
1515      0.3877551 , 0.73099415, 0.56006494, 0.
6918239 ]), 'recall': array([0.86153846, 0.37837838
, 0.57142857, 0.30645161, 0.71495327,
1516      0.21348315, 0.7183908 , 0.76327434, 0.
56122449])}
1517 val epoch results {'accuracy': 0.6643356643356644
, 'f1_weighted': 0.6559005355993531, 'f1_macro': 0.
6139521150154348, 'f1': array([0.88767123, 0.
44897959, 0.60869565, 0.48447205, 0.68834688,
1518      0.45669291, 0.70503597, 0.65051903, 0.
59515571]), 'precision': array([0.83937824, 0.55
, 0.75      , 0.72222222, 0.66492147,
1519      0.53703704, 0.75384615, 0.5708502 , 0.
69918699]), 'recall': array([0.94186047, 0.37931034
, 0.51219512, 0.36448598, 0.71348315,
1520      0.39726027, 0.66216216, 0.75603217, 0.
51807229])}
1521 28960it [05:24, 89.22it/s]
1522 diversity new embedding 1511
```

```
1523 diversity len embedding 1511
1524 MLP_1h(
1525     (l1): Linear(in_features=81, out_features=100,
1526       bias=True)
1526     (l2): Linear(in_features=100, out_features=9,
1527       bias=True)
1527 )
1528 [1251, 167, 1208, 1056, 810, 1223, 693, 1305, 717,
1529   1271, 129, 366, 174, 355, 1124, 1483, 1016, 264,
1530   1328, 9, 497, 918, 1167, 177, 1381, 1119, 734, 503
1531   , 731, 474, 555, 854, 414, 13, 616, 1213, 683, 612
1532   , 58, 1304, 1166, 1178, 1280, 809, 364, 516, 514,
1533   684, 1378, 1410, 1387, 488, 271, 324, 315, 445,
1534   1441, 1316, 1394, 747, 691, 75, 1408, 1185, 933,
1535   829, 232, 1439, 1236, 306, 775, 475, 191, 761, 849
1536   , 732, 18, 624, 353, 1507, 1306, 513, 523, 834,
1537   1118, 559, 74, 40, 501, 672, 1226, 41, 39, 1371,
1538   311, 962, 76, 972, 158, 685, 1107, 701, 880, 1199,
1539   1257, 150, 1449, 601, 108, 588, 390, 65, 1201, 1217
1540   , 856, 997, 460, 772, 811, 410, 1382, 1331, 1017,
1541   420, 19, 830, 785, 339, 443, 994, 1327, 453, 971,
1542   958, 1085, 1202, 1192, 217, 1075, 387, 842, 779,
1543   1413, 231, 525, 226, 1348, 435, 1346, 655, 977, 963
1544   , 709, 170, 483, 857, 173, 413, 200, 68, 295, 618,
1545   1433, 560, 297, 653, 1368, 748, 1141, 1501, 273,
1546   801, 3, 678, 317, 1351, 657, 1446, 1120, 54, 1116,
1547   193, 722, 1367, 274, 515, 1411, 745, 1068, 522, 99
1548   , 292, 305, 1386, 552, 1097, 1315, 915, 1289, 925,
1549   671, 840, 806, 1165, 467, 323, 529, 449, 428, 1176
1550   , 749, 62, 579, 623, 690, 1222, 762, 959, 281, 839
1551   , 664, 1220, 1160, 1203, 350, 538, 1365, 1010, 1189
1552   , 590, 1336, 1121, 405, 650, 138, 120, 194, 313,
1553   1332, 263, 1197, 1469, 127, 495, 424, 964, 1221,
1554   287, 841, 868, 1157, 20, 652, 1198, 1463, 476, 913
1555   , 406, 795, 574, 548, 512, 739, 1023, 92, 230, 56,
1556   97, 636, 438, 333, 326, 1090, 1038, 344, 708, 320,
1557   1274, 686, 687, 729, 954, 1355, 663, 1509, 884,
1558   1205, 777, 798, 227, 870, 1241, 1093, 846, 1015,
1559   100, 1361, 1173, 1146, 1172, 1312, 1245]
1560 []
1561 Downloading data files: 100% |██████████| 1/1 [00:00]
```

```
1530 <?, ?it/s]
1531 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 143.32it/s]
1532 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-bd592d8aa79ceb19/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1533 100%|██████████| 1/1 [00:00<00:00, 83.61it/s]
1534 Dataset csv downloaded and prepared to C:/Users/
admin/.cache/huggingface/datasets/csv/default-
bd592d8aa79ceb19/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1535 Downloading data files: 100%|██████████| 1/1 [00:00
<00:00, 2015.52it/s]
1536 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 154.83it/s]
1537 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
datasets/csv/default-ebdbf2795237ce5f/0.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1...
1538 0%|          | 0/1 [00:00<?, ?it/s]Dataset csv
downloaded and prepared to C:/Users/admin/.cache/
huggingface/datasets/csv/default-ebdbf2795237ce5f/0
.0.0/
6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
53bcc7ec513e1. Subsequent calls will reuse this
data.
1539 100%|██████████| 1/1 [00:00<00:00, 44.73it/s]
1540 Downloading data files: 100%|██████████| 1/1 [00:00
<?, ?it/s]
1541 Extracting data files: 100%|██████████| 1/1 [00:00<
00:00, 124.45it/s]
1542 Generating train split: 0 examples [00:00, ?
examples/s]Downloading and preparing dataset csv/
default to C:/Users/admin/.cache/huggingface/
```

```
1542 datasets/csv/default-d8a5449a6c75845a/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1543 100%|██████████| 1/1 [00:00<00:00, 69.24it/s]
1544 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    d8a5449a6c75845a/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1545 Downloading data files: 100%|██████████| 1/1 [00:00
    <, ?it/s]
1546 Downloading and preparing dataset csv/default to C
    :/Users/admin/.cache/huggingface/datasets/csv/
    default-589a3e4df3f4a7ca/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1...
1547 Extracting data files: 100%|██████████| 1/1 [00:00<
    00:00, 74.57it/s]
1548 100%|██████████| 1/1 [00:00<00:00, 103.78it/s]
1549 Dataset csv downloaded and prepared to C:/Users/
    admin/.cache/huggingface/datasets/csv/default-
    589a3e4df3f4a7ca/0.0.0/
    6954658bab30a358235fa864b05cf819af0e179325c740e4bc8
    53bcc7ec513e1. Subsequent calls will reuse this
    data.
1550 t is : 10
1551 addlen is: 5000
1552
1553 Process finished with exit code 0
1554
```