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C:\ProgramData\Anaconda3\python.exe C:/Users/Joshmiao/Desktop/ABSA-Aspect-Based-Sentimental-Analysis/main.py
CUDA is available.
There are 1 CUDA device(s) on this computer.
Some weights of the model checkpoint at ./BERT_model/ were not used when initializing BertModel: ['cls.predictions
.transform.dense.bias', 'cls.predictions.transform.dense.weight', 'cls.predictions.transform.LayerNorm.bias', 'cls
.predictions.decoder.weight', 'cls.seq_relationship.weight', 'cls.predictions.bias', 'cls.predictions.transform.
LayerNorm.weight', 'cls.seq_relationship.bias']
- This IS expected if you are initializing BertModel from the checkpoint of a model trained on another task or
with another architecture (e.g. initializing a BertForSequenceClassification model from a BertForPreTraining model
).
- This IS NOT expected if you are initializing BertModel from the checkpoint of a model that you expect to be
exactly identical (initializing a BertForSequenceClassification model from a BertForSequenceClassification model).
Some weights of the model checkpoint at ./BERT_model/ were not used when initializing BertModel: ['cls.predictions
.transform.dense.bias', 'cls.predictions.transform.dense.weight', 'cls.predictions.transform.LayerNorm.bias', 'cls
.predictions.decoder.weight', 'cls.seq_relationship.weight', 'cls.predictions.bias', 'cls.predictions.transform.
LayerNorm.weight', 'cls.seq_relationship.bias']
- This IS expected if you are initializing BertModel from the checkpoint of a model trained on another task or
with another architecture (e.g. initializing a BertForSequenceClassification model from a BertForPreTraining model
).
- This IS NOT expected if you are initializing BertModel from the checkpoint of a model that you expect to be
exactly identical (initializing a BertForSequenceClassification model from a BertForSequenceClassification model).
Some weights of the model checkpoint at ./Roberta_model/ were not used when initializing RobertaModel: ['lm_head.
layer_norm.bias', 'lm_head.dense.bias', 'lm_head.bias', 'lm_head.decoder.weight', 'lm_head.dense.weight', 'lm_head
.layer_norm.weight']
- This IS expected if you are initializing RobertaModel from the checkpoint of a model trained on another task or
with another architecture (e.g. initializing a BertForSequenceClassification model from a BertForPreTraining model
).
- This IS NOT expected if you are initializing RobertaModel from the checkpoint of a model that you expect to be
exactly identical (initializing a BertForSequenceClassification model from a BertForSequenceClassification model).
max length = 86
max length = 54
max length = 98
max length = 80
391
0 tensor([[ 101, 2428, 1029, ..., 0, 0, 0],
          [ 101, 1005, 1005, ..., 0, 0, 0],
          [ 101, 29168, 13957, ..., 0, 0, 0],
          ...,
          [ 101, 3533, 7226, ..., 0, 0, 0],
          [ 101, 1047, 20459, ..., 0, 0, 0],
          [ 101, 2026, 2567, ..., 0, 0, 0]], device='cuda:0') tensor([[0, 0, 0, ..., 0, 0, 0],
          [0, 0, 0, ..., 0, 0, 0],
          [0, 5, 6, ..., 0, 0, 0],
          ...,
          [0, 1, 2, ..., 0, 0, 0],
          [0, 0, 0, ..., 0, 0, 0],
          [0, 0, 0, ..., 0, 0, 0]], device='cuda:0')
epoch0 :
avg_training_loss = 0.05627338965530591
used time = 59.847094774246216
tot_cnt=76120 acc_cnt=75287 true_cnt=1524 pred_cnt=1569 true_pred_cnt=776
acc.=0.989057 pre.=0.494583 rec.=0.509186 f1=0.501778
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epoch1 :
avg_training_loss = 0.02288928117288653
used time = 59.07046365737915
tot_cnt=76120 acc_cnt=75397 true_cnt=1524 pred_cnt=1556 true_pred_cnt=867
acc.=0.990502 pre.=0.557198 rec.=0.568898 f1=0.562987
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epoch2 :
avg_training_loss = 0.019184193037964804
used time = 59.25723934173584
tot_cnt=76120 acc_cnt=75577 true_cnt=1524 pred_cnt=1519 true_pred_cnt=1027
acc.=0.992867 pre.=0.676103 rec.=0.673885 f1=0.674992
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epoch3 :
avg_training_loss = 0.014735973094735304
used time = 59.419291257858276
tot_cnt=76120 acc_cnt=75608 true_cnt=1524 pred_cnt=1515 true_pred_cnt=1052
acc.=0.993274 pre.=0.694389 rec.=0.690289 f1=0.692333
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epoch4 :

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avg_training_loss = 0.011082849234266355
used time = 59.54897952079773
tot_cnt=76120 acc_cnt=75601 true_cnt=1524 pred_cnt=1551 true_pred_cnt=1072
acc.=0.993182 pre.=0.691167 rec.=0.703412 f1=0.697236
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epoch5 :
avg_training_loss = 0.008095482121343199
used time = 59.495073318481445
tot_cnt=76120 acc_cnt=75599 true_cnt=1524 pred_cnt=1578 true_pred_cnt=1088
acc.=0.993156 pre.=0.689480 rec.=0.713911 f1=0.701483
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epoch6 :
avg_training_loss = 0.005594170611837636
used time = 60.101741313934326
tot_cnt=76120 acc_cnt=75563 true_cnt=1524 pred_cnt=1519 true_pred_cnt=1004
acc.=0.992683 pre.=0.660961 rec.=0.658793 f1=0.659875
-----

epoch7 :
avg_training_loss = 0.003567091644267597
used time = 59.52940320968628
tot_cnt=76120 acc_cnt=75605 true_cnt=1524 pred_cnt=1511 true_pred_cnt=1049
acc.=0.993234 pre.=0.694242 rec.=0.688320 f1=0.691269
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epoch8 :
avg_training_loss = 0.002505499383677607
used time = 59.50700807571411
tot_cnt=76120 acc_cnt=75617 true_cnt=1524 pred_cnt=1542 true_pred_cnt=1074
acc.=0.993392 pre.=0.696498 rec.=0.704724 f1=0.700587
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epoch9 :
avg_training_loss = 0.001828032533835877
used time = 59.55915379524231
tot_cnt=76120 acc_cnt=75614 true_cnt=1524 pred_cnt=1530 true_pred_cnt=1064
acc.=0.993353 pre.=0.695425 rec.=0.698163 f1=0.696791
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epoch10 :
avg_training_loss = 0.001794302097671782
used time = 59.495492935180664
tot_cnt=76120 acc_cnt=75608 true_cnt=1524 pred_cnt=1547 true_pred_cnt=1067
acc.=0.993274 pre.=0.689722 rec.=0.700131 f1=0.694888
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epoch11 :
avg_training_loss = 0.0015428307111305958
used time = 59.50422286987305
tot_cnt=76120 acc_cnt=75580 true_cnt=1524 pred_cnt=1519 true_pred_cnt=1033
acc.=0.992906 pre.=0.680053 rec.=0.677822 f1=0.678935
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epoch12 :
avg_training_loss = 0.0015166336313233047
used time = 59.51451897621155
tot_cnt=76120 acc_cnt=75607 true_cnt=1524 pred_cnt=1544 true_pred_cnt=1078
acc.=0.993261 pre.=0.698187 rec.=0.707349 f1=0.702738
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epoch13 :
avg_training_loss = 0.0014559182974383654
used time = 59.512715101242065
tot_cnt=76120 acc_cnt=75597 true_cnt=1524 pred_cnt=1550 true_pred_cnt=1070
acc.=0.993129 pre.=0.690323 rec.=0.702100 f1=0.696161
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epoch14 :
avg_training_loss = 0.000848063575032422
used time = 59.54251718521118
tot_cnt=76120 acc_cnt=75607 true_cnt=1524 pred_cnt=1511 true_pred_cnt=1052
acc.=0.993261 pre.=0.696228 rec.=0.690289 f1=0.693245
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epoch15 :
avg_training_loss = 0.0004931392572115144
used time = 59.51224708557129
tot_cnt=76120 acc_cnt=75615 true_cnt=1524 pred_cnt=1542 true_pred_cnt=1079
acc.=0.993366 pre.=0.699741 rec.=0.708005 f1=0.703849
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epoch16 :
avg_training_loss = 0.0010652131284289348
used time = 59.54674053192139
tot_cnt=76120 acc_cnt=75617 true_cnt=1524 pred_cnt=1541 true_pred_cnt=1076
acc.=0.993392 pre.=0.698248 rec.=0.706037 f1=0.702121
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epoch17 :
avg_training_loss = 0.000985006084832389
used time = 59.48983430862427
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tot_cnt=76120 acc_cnt=75599 true_cnt=1524 pred_cnt=1551 true_pred_cnt=1063
acc.=0.993156 pre.=0.685364 rec.=0.697507 f1=0.691382
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epoch18 :
avg_training_loss = 0.0010013094795939257
used time = 59.51163983345032
tot_cnt=76120 acc_cnt=75585 true_cnt=1524 pred_cnt=1534 true_pred_cnt=1040
acc.=0.992972 pre.=0.677966 rec.=0.682415 f1=0.680183
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epoch19 :
avg_training_loss = 0.0005759920381828952
used time = 59.510374307632446
tot_cnt=76120 acc_cnt=75614 true_cnt=1524 pred_cnt=1537 true_pred_cnt=1069
acc.=0.993353 pre.=0.695511 rec.=0.701444 f1=0.698465
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epoch20 :
avg_training_loss = 0.0006291694424646285
used time = 59.52918338775635
tot_cnt=76120 acc_cnt=75563 true_cnt=1524 pred_cnt=1542 true_pred_cnt=1014
acc.=0.992683 pre.=0.657588 rec.=0.665354 f1=0.661448
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epoch21 :
avg_training_loss = 0.0009413450727682284
used time = 59.54326248168945
tot_cnt=76120 acc_cnt=75597 true_cnt=1524 pred_cnt=1531 true_pred_cnt=1051
acc.=0.993129 pre.=0.686479 rec.=0.689633 f1=0.688052
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epoch22 :
avg_training_loss = 0.0007191763052245235
used time = 59.51539158821106
tot_cnt=76120 acc_cnt=75597 true_cnt=1524 pred_cnt=1546 true_pred_cnt=1058
acc.=0.993129 pre.=0.684347 rec.=0.694226 f1=0.689251
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epoch23 :
avg_training_loss = 0.0008642148331303121
used time = 59.51609921455383
tot_cnt=76120 acc_cnt=75587 true_cnt=1524 pred_cnt=1487 true_pred_cnt=1025
acc.=0.992998 pre.=0.689307 rec.=0.672572 f1=0.680837
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epoch24 :
avg_training_loss = 0.0006272555388453061
used time = 59.54798412322998
tot_cnt=76120 acc_cnt=75550 true_cnt=1524 pred_cnt=1554 true_pred_cnt=1017
acc.=0.992512 pre.=0.654440 rec.=0.667323 f1=0.660819
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epoch25 :
avg_training_loss = 0.0004974517523480194
used time = 59.50525689125061
tot_cnt=76120 acc_cnt=75555 true_cnt=1524 pred_cnt=1549 true_pred_cnt=1015
acc.=0.992578 pre.=0.655261 rec.=0.666010 f1=0.660592
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epoch26 :
avg_training_loss = 0.0005410497679429896
used time = 59.57277274131775
tot_cnt=76120 acc_cnt=75538 true_cnt=1524 pred_cnt=1539 true_pred_cnt=994
acc.=0.992354 pre.=0.645874 rec.=0.652231 f1=0.649037
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epoch27 :
avg_training_loss = 0.0005198361928505665
used time = 59.541542291641235
tot_cnt=76120 acc_cnt=75580 true_cnt=1524 pred_cnt=1553 true_pred_cnt=1041
acc.=0.992906 pre.=0.670316 rec.=0.683071 f1=0.676633
-----
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epoch28 :
avg_training_loss = 0.0005412072781711588
used time = 59.5940887928009
tot_cnt=76120 acc_cnt=75625 true_cnt=1524 pred_cnt=1560 true_pred_cnt=1092
acc.=0.993497 pre.=0.700000 rec.=0.716535 f1=0.708171
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```
epoch29 :
avg_training_loss = 0.0003057467129529285
used time = 59.57759928703308
tot_cnt=76120 acc_cnt=75564 true_cnt=1524 pred_cnt=1567 true_pred_cnt=1030
acc.=0.992696 pre.=0.657307 rec.=0.675853 f1=0.666451
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epoch30 :
avg_training_loss = 0.00048755158853652834
used time = 59.56705093383789
tot_cnt=76120 acc_cnt=75607 true_cnt=1524 pred_cnt=1549 true_pred_cnt=1067
acc.=0.993261 pre.=0.688832 rec.=0.700131 f1=0.694435
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epoch31 :
avg_training_loss = 0.00034100125970133125
used time = 59.690629720687866
tot_cnt=76120 acc_cnt=75601 true_cnt=1524 pred_cnt=1540 true_pred_cnt=1055
acc.=0.993182 pre.=0.685065 rec.=0.692257 f1=0.688642
-----

epoch32 :
avg_training_loss = 0.0006030279657115107
used time = 59.5460946559906
tot_cnt=76120 acc_cnt=75617 true_cnt=1524 pred_cnt=1555 true_pred_cnt=1078
acc.=0.993392 pre.=0.693248 rec.=0.707349 f1=0.700227
-----

epoch33 :
avg_training_loss = 0.00036360818864134573
used time = 59.52288103103638
tot_cnt=76120 acc_cnt=75616 true_cnt=1524 pred_cnt=1549 true_pred_cnt=1071
acc.=0.993379 pre.=0.691414 rec.=0.702756 f1=0.697039
-----

epoch34 :
avg_training_loss = 0.0002922517869173718
used time = 59.58121967315674
tot_cnt=76120 acc_cnt=75615 true_cnt=1524 pred_cnt=1527 true_pred_cnt=1057
acc.=0.993366 pre.=0.692207 rec.=0.693570 f1=0.692888
-----

epoch35 :
avg_training_loss = 0.0006829554315113351
used time = 59.55863833427429
tot_cnt=76120 acc_cnt=75585 true_cnt=1524 pred_cnt=1530 true_pred_cnt=1038
acc.=0.992972 pre.=0.678431 rec.=0.681102 f1=0.679764
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epoch36 :
avg_training_loss = 0.0005978150364687986
used time = 59.51881647109985
tot_cnt=76120 acc_cnt=75605 true_cnt=1524 pred_cnt=1559 true_pred_cnt=1073
acc.=0.993234 pre.=0.688262 rec.=0.704068 f1=0.696075
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epoch37 :
avg_training_loss = 0.00048466400264779013
used time = 59.58192014694214
tot_cnt=76120 acc_cnt=75592 true_cnt=1524 pred_cnt=1541 true_pred_cnt=1050
acc.=0.993064 pre.=0.681376 rec.=0.688976 f1=0.685155
-----

epoch38 :
avg_training_loss = 0.0002527623187245615
used time = 59.579540967941284
tot_cnt=76120 acc_cnt=75603 true_cnt=1524 pred_cnt=1533 true_pred_cnt=1057
acc.=0.993208 pre.=0.689498 rec.=0.693570 f1=0.691528
-----

epoch39 :
avg_training_loss = 0.00024515274159438773
used time = 59.52156901359558
tot_cnt=76120 acc_cnt=75581 true_cnt=1524 pred_cnt=1541 true_pred_cnt=1046
acc.=0.992919 pre.=0.678780 rec.=0.686352 f1=0.682545
-----

epoch0 :
avg_training_loss = 0.04656187774580153
used time = 63.11655235290527
tot_cnt=76120 acc_cnt=75340 true_cnt=1524 pred_cnt=1563 true_pred_cnt=829
acc.=0.989753 pre.=0.530390 rec.=0.543963 f1=0.537091
-----

epoch1 :
avg_training_loss = 0.021338450634266103
used time = 63.222188234329224
tot_cnt=76120 acc_cnt=75523 true_cnt=1524 pred_cnt=1543 true_pred_cnt=988
acc.=0.992157 pre.=0.640311 rec.=0.648294 f1=0.644278
-----

epoch2 :
avg_training_loss = 0.016259434887820192
used time = 63.23888826370239
tot_cnt=76120 acc_cnt=75622 true_cnt=1524 pred_cnt=1516 true_pred_cnt=1070
acc.=0.993458 pre.=0.705805 rec.=0.702100 f1=0.703947
-----

epoch3 :
avg_training_loss = 0.012477328405355858
used time = 63.22134804725647
tot_cnt=76120 acc_cnt=75648 true_cnt=1524 pred_cnt=1533 true_pred_cnt=1102
acc.=0.993799 pre.=0.718852 rec.=0.723097 f1=0.720968
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epoch4 :
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avg_training_loss = 0.009481745302829596
used time = 63.24761939048767
tot_cnt=76120 acc_cnt=75645 true_cnt=1524 pred_cnt=1550 true_pred_cnt=1108
acc.=0.993760 pre.=0.714839 rec.=0.727034 f1=0.720885
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epoch5 :
avg_training_loss = 0.006170963082472077
used time = 63.265554904937744
tot_cnt=76120 acc_cnt=75618 true_cnt=1524 pred_cnt=1547 true_pred_cnt=1079
acc.=0.993405 pre.=0.697479 rec.=0.708005 f1=0.702703
-----

epoch6 :
avg_training_loss = 0.004061163233978974
used time = 63.21632480621338
tot_cnt=76120 acc_cnt=75641 true_cnt=1524 pred_cnt=1559 true_pred_cnt=1109
acc.=0.993707 pre.=0.711353 rec.=0.727690 f1=0.719429
-----

epoch7 :
avg_training_loss = 0.0028459989201382297
used time = 63.245211124420166
tot_cnt=76120 acc_cnt=75624 true_cnt=1524 pred_cnt=1564 true_pred_cnt=1099
acc.=0.993484 pre.=0.702685 rec.=0.721129 f1=0.711788
-----

epoch8 :
avg_training_loss = 0.00225644007973049
used time = 63.315868854522705
tot_cnt=76120 acc_cnt=75644 true_cnt=1524 pred_cnt=1553 true_pred_cnt=1109
acc.=0.993747 pre.=0.714102 rec.=0.727690 f1=0.720832
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epoch9 :
avg_training_loss = 0.0015452865444485794
used time = 63.21735382080078
tot_cnt=76120 acc_cnt=75610 true_cnt=1524 pred_cnt=1541 true_pred_cnt=1061
acc.=0.993300 pre.=0.688514 rec.=0.696194 f1=0.692333
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epoch10 :
avg_training_loss = 0.0012356116033880912
used time = 63.23555278778076
tot_cnt=76120 acc_cnt=75595 true_cnt=1524 pred_cnt=1544 true_pred_cnt=1056
acc.=0.993103 pre.=0.683938 rec.=0.692913 f1=0.688396
-----

epoch11 :
avg_training_loss = 0.001344338554860381
used time = 63.291344165802
tot_cnt=76120 acc_cnt=75599 true_cnt=1524 pred_cnt=1544 true_pred_cnt=1052
acc.=0.993156 pre.=0.681347 rec.=0.690289 f1=0.685789
-----

epoch12 :
avg_training_loss = 0.0013040581627575029
used time = 63.27908182144165
tot_cnt=76120 acc_cnt=75619 true_cnt=1524 pred_cnt=1559 true_pred_cnt=1085
acc.=0.993418 pre.=0.695959 rec.=0.711942 f1=0.703860
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epoch13 :
avg_training_loss = 0.0010505767582017747
used time = 63.34778451919556
tot_cnt=76120 acc_cnt=75645 true_cnt=1524 pred_cnt=1525 true_pred_cnt=1091
acc.=0.993760 pre.=0.715410 rec.=0.715879 f1=0.715644
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epoch14 :
avg_training_loss = 0.0007647160069107094
used time = 63.22114372253418
tot_cnt=76120 acc_cnt=75621 true_cnt=1524 pred_cnt=1526 true_pred_cnt=1070
acc.=0.993445 pre.=0.701180 rec.=0.702100 f1=0.701639
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epoch15 :
avg_training_loss = 0.0008596781726993259
used time = 63.24513840675354
tot_cnt=76120 acc_cnt=75587 true_cnt=1524 pred_cnt=1513 true_pred_cnt=1032
acc.=0.992998 pre.=0.682089 rec.=0.677165 f1=0.679618
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epoch16 :
avg_training_loss = 0.0006126691313350902
used time = 63.208829402923584
tot_cnt=76120 acc_cnt=75603 true_cnt=1524 pred_cnt=1521 true_pred_cnt=1048
acc.=0.993208 pre.=0.689020 rec.=0.687664 f1=0.688342
-----

epoch17 :
avg_training_loss = 0.001012047767029394
used time = 63.22975182533264
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tot_cnt=76120 acc_cnt=75599 true_cnt=1524 pred_cnt=1542 true_pred_cnt=1051
acc.=0.993156 pre.=0.681582 rec.=0.689633 f1=0.685584
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epoch18 :
avg_training_loss = 0.0007136850558278506
used time = 63.303645610809326
tot_cnt=76120 acc_cnt=75598 true_cnt=1524 pred_cnt=1535 true_pred_cnt=1050
acc.=0.993142 pre.=0.684039 rec.=0.688976 f1=0.686499
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epoch19 :
avg_training_loss = 0.0007055322532458683
used time = 63.306392669677734
tot_cnt=76120 acc_cnt=75645 true_cnt=1524 pred_cnt=1541 true_pred_cnt=1095
acc.=0.993760 pre.=0.710578 rec.=0.718504 f1=0.714519
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epoch20 :
avg_training_loss = 0.0009358413993854962
used time = 63.68917155265808
tot_cnt=76120 acc_cnt=75573 true_cnt=1524 pred_cnt=1519 true_pred_cnt=1023
acc.=0.992814 pre.=0.673469 rec.=0.671260 f1=0.672363
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epoch21 :
avg_training_loss = 0.0006020504342930396
used time = 63.13446879386902
tot_cnt=76120 acc_cnt=75568 true_cnt=1524 pred_cnt=1560 true_pred_cnt=1041
acc.=0.992748 pre.=0.667308 rec.=0.683071 f1=0.675097
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epoch22 :
avg_training_loss = 0.0004726360978372871
used time = 63.0773491859436
tot_cnt=76120 acc_cnt=75574 true_cnt=1524 pred_cnt=1572 true_pred_cnt=1055
acc.=0.992827 pre.=0.671120 rec.=0.692257 f1=0.681525
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```
epoch23 :
avg_training_loss = 0.0004715522384399648
used time = 63.33647561073303
tot_cnt=76120 acc_cnt=75590 true_cnt=1524 pred_cnt=1517 true_pred_cnt=1033
acc.=0.993037 pre.=0.680949 rec.=0.677822 f1=0.679382
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epoch24 :
avg_training_loss = 0.000554183178850452
used time = 63.13512969017029
tot_cnt=76120 acc_cnt=75602 true_cnt=1524 pred_cnt=1557 true_pred_cnt=1068
acc.=0.993195 pre.=0.685934 rec.=0.700787 f1=0.693281
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epoch25 :
avg_training_loss = 0.0003380666837058104
used time = 63.08604884147644
tot_cnt=76120 acc_cnt=75588 true_cnt=1524 pred_cnt=1551 true_pred_cnt=1042
acc.=0.993011 pre.=0.671825 rec.=0.683727 f1=0.677724
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```
epoch26 :
avg_training_loss = 0.0005910377520734392
used time = 63.116982221603394
tot_cnt=76120 acc_cnt=75624 true_cnt=1524 pred_cnt=1540 true_pred_cnt=1073
acc.=0.993484 pre.=0.696753 rec.=0.704068 f1=0.700392
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epoch27 :
avg_training_loss = 0.0005994324412797113
used time = 63.76734685897827
tot_cnt=76120 acc_cnt=75590 true_cnt=1524 pred_cnt=1564 true_pred_cnt=1057
acc.=0.993037 pre.=0.675831 rec.=0.693570 f1=0.684585
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epoch28 :
avg_training_loss = 0.0005831532466137196
used time = 63.21161437034607
tot_cnt=76120 acc_cnt=75517 true_cnt=1524 pred_cnt=1528 true_pred_cnt=967
acc.=0.992078 pre.=0.632853 rec.=0.634514 f1=0.633683
-----
```

```
epoch29 :
avg_training_loss = 0.00048166010385888923
used time = 63.13533926010132
tot_cnt=76120 acc_cnt=75596 true_cnt=1524 pred_cnt=1546 true_pred_cnt=1061
acc.=0.993116 pre.=0.686287 rec.=0.696194 f1=0.691205
-----
```

```
epoch30 :
avg_training_loss = 0.0004472061420035789
used time = 63.12802338600159
tot_cnt=76120 acc_cnt=75610 true_cnt=1524 pred_cnt=1546 true_pred_cnt=1074
acc.=0.993300 pre.=0.694696 rec.=0.704724 f1=0.699674
```

```
-----
epoch31 :
avg_training_loss = 0.0004027517479094093
used time = 63.46352767944336
tot_cnt=76120 acc_cnt=75616 true_cnt=1524 pred_cnt=1518 true_pred_cnt=1055
acc.=0.993379 pre.=0.694993 rec.=0.692257 f1=0.693623
-----

epoch32 :
avg_training_loss = 0.0004125537774751863
used time = 63.41367864608765
tot_cnt=76120 acc_cnt=75604 true_cnt=1524 pred_cnt=1507 true_pred_cnt=1047
acc.=0.993221 pre.=0.694758 rec.=0.687008 f1=0.690861
-----

epoch33 :
avg_training_loss = 0.00038235590738408705
used time = 63.31091785430908
tot_cnt=76120 acc_cnt=75635 true_cnt=1524 pred_cnt=1519 true_pred_cnt=1081
acc.=0.993628 pre.=0.711652 rec.=0.709318 f1=0.710483
-----

epoch34 :
avg_training_loss = 0.0005541238409783834
used time = 63.43158578872681
tot_cnt=76120 acc_cnt=75625 true_cnt=1524 pred_cnt=1529 true_pred_cnt=1075
acc.=0.993497 pre.=0.703074 rec.=0.705381 f1=0.704225
-----

epoch35 :
avg_training_loss = 0.00042765231236167574
used time = 63.31422209739685
tot_cnt=76120 acc_cnt=75606 true_cnt=1524 pred_cnt=1552 true_pred_cnt=1066
acc.=0.993248 pre.=0.686856 rec.=0.699475 f1=0.693108
-----

epoch36 :
avg_training_loss = 0.00019791388831784962
used time = 63.38275361061096
tot_cnt=76120 acc_cnt=75594 true_cnt=1524 pred_cnt=1547 true_pred_cnt=1050
acc.=0.993090 pre.=0.678733 rec.=0.688976 f1=0.683816
-----

epoch37 :
avg_training_loss = 0.0004492429135095738
used time = 63.47359323501587
tot_cnt=76120 acc_cnt=75599 true_cnt=1524 pred_cnt=1500 true_pred_cnt=1036
acc.=0.993156 pre.=0.690667 rec.=0.679790 f1=0.685185
-----

epoch38 :
avg_training_loss = 0.0001861195239569525
used time = 63.40558934211731
tot_cnt=76120 acc_cnt=75597 true_cnt=1524 pred_cnt=1517 true_pred_cnt=1043
acc.=0.993129 pre.=0.687541 rec.=0.684383 f1=0.685959
-----

epoch39 :
avg_training_loss = 0.0007333539788375426
used time = 63.30465817451477
tot_cnt=76120 acc_cnt=75655 true_cnt=1524 pred_cnt=1512 true_pred_cnt=1096
acc.=0.993891 pre.=0.724868 rec.=0.719160 f1=0.722003
-----

epoch0 :
avg_training_loss = 0.15996547008123924
used time = 19.827849864959717
tot_cnt=67650 acc_cnt=65967 true_cnt=2268 pred_cnt=1681 true_pred_cnt=808
acc.=0.975122 pre.=0.480666 rec.=0.356261 f1=0.409218
-----

epoch1 :
avg_training_loss = 0.06421146242637334
used time = 19.840730667114258
tot_cnt=67650 acc_cnt=66319 true_cnt=2268 pred_cnt=2060 true_pred_cnt=1181
acc.=0.980325 pre.=0.573301 rec.=0.520723 f1=0.545749
-----

epoch2 :
avg_training_loss = 0.05148585387102262
used time = 19.896437883377075
tot_cnt=67650 acc_cnt=66417 true_cnt=2268 pred_cnt=2277 true_pred_cnt=1343
acc.=0.981774 pre.=0.589811 rec.=0.592152 f1=0.590979
-----

epoch3 :
avg_training_loss = 0.04298538298118772
used time = 19.75548481941223
tot_cnt=67650 acc_cnt=66598 true_cnt=2268 pred_cnt=2418 true_pred_cnt=1589
acc.=0.984449 pre.=0.657155 rec.=0.700617 f1=0.678190
-----

epoch4 :
```

```
avg_training_loss = 0.034208767057403805
used time = 19.72650980949402
tot_cnt=67650 acc_cnt=66703 true_cnt=2268 pred_cnt=2404 true_pred_cnt=1652
acc.=0.986001 pre.=0.687188 rec.=0.728395 f1=0.707192
-----

epoch5 :
avg_training_loss = 0.026586915564349316
used time = 19.72098708152771
tot_cnt=67650 acc_cnt=66737 true_cnt=2268 pred_cnt=2302 true_pred_cnt=1647
acc.=0.986504 pre.=0.715465 rec.=0.726190 f1=0.720788
-----

epoch6 :
avg_training_loss = 0.021783205467884936
used time = 19.695263624191284
tot_cnt=67650 acc_cnt=66762 true_cnt=2268 pred_cnt=2408 true_pred_cnt=1698
acc.=0.986874 pre.=0.705150 rec.=0.748677 f1=0.726262
-----

epoch7 :
avg_training_loss = 0.0178620871596449
used time = 19.692688465118408
tot_cnt=67650 acc_cnt=66766 true_cnt=2268 pred_cnt=2292 true_pred_cnt=1657
acc.=0.986933 pre.=0.722949 rec.=0.730600 f1=0.726754
-----

epoch8 :
avg_training_loss = 0.014534798194104291
used time = 19.702693939208984
tot_cnt=67650 acc_cnt=66787 true_cnt=2268 pred_cnt=2470 true_pred_cnt=1750
acc.=0.987243 pre.=0.708502 rec.=0.771605 f1=0.738708
-----

epoch9 :
avg_training_loss = 0.012486958128260815
used time = 19.73978567123413
tot_cnt=67650 acc_cnt=66774 true_cnt=2268 pred_cnt=2414 true_pred_cnt=1706
acc.=0.987051 pre.=0.706711 rec.=0.752205 f1=0.728748
-----

epoch10 :
avg_training_loss = 0.010845251909391148
used time = 19.746339321136475
tot_cnt=67650 acc_cnt=66782 true_cnt=2268 pred_cnt=2274 true_pred_cnt=1658
acc.=0.987169 pre.=0.729112 rec.=0.731041 f1=0.730075
-----

epoch11 :
avg_training_loss = 0.008788766823415681
used time = 19.727578163146973
tot_cnt=67650 acc_cnt=66834 true_cnt=2268 pred_cnt=2431 true_pred_cnt=1771
acc.=0.987938 pre.=0.728507 rec.=0.780864 f1=0.753777
-----

epoch12 :
avg_training_loss = 0.009419951851912372
used time = 19.754995584487915
tot_cnt=67650 acc_cnt=66758 true_cnt=2268 pred_cnt=2316 true_pred_cnt=1662
acc.=0.986814 pre.=0.717617 rec.=0.732804 f1=0.725131
-----

epoch13 :
avg_training_loss = 0.007138984879170816
used time = 19.740315198898315
tot_cnt=67650 acc_cnt=66751 true_cnt=2268 pred_cnt=2338 true_pred_cnt=1648
acc.=0.986711 pre.=0.704876 rec.=0.726631 f1=0.715588
-----

epoch14 :
avg_training_loss = 0.006589795191456953
used time = 19.759928703308105
tot_cnt=67650 acc_cnt=66828 true_cnt=2268 pred_cnt=2342 true_pred_cnt=1712
acc.=0.987849 pre.=0.730999 rec.=0.754850 f1=0.742733
-----

epoch15 :
avg_training_loss = 0.005607809138110304
used time = 19.70345449447632
tot_cnt=67650 acc_cnt=66820 true_cnt=2268 pred_cnt=2486 true_pred_cnt=1790
acc.=0.987731 pre.=0.720032 rec.=0.789242 f1=0.753050
-----

epoch16 :
avg_training_loss = 0.004203382908828615
used time = 19.719478607177734
tot_cnt=67650 acc_cnt=66868 true_cnt=2268 pred_cnt=2409 true_pred_cnt=1778
acc.=0.988441 pre.=0.738066 rec.=0.783951 f1=0.760316
-----

epoch17 :
avg_training_loss = 0.004838741201115405
used time = 19.706619024276733
```



```
tot_cnt=67650 acc_cnt=66794 true_cnt=2268 pred_cnt=2347 true_pred_cnt=1690
acc.=0.987347 pre.=0.720068 rec.=0.745150 f1=0.732394
-----
```

```
epoch18 :
avg_training_loss = 0.0036291853180081828
used time = 19.741335153579712
tot_cnt=67650 acc_cnt=66792 true_cnt=2268 pred_cnt=2373 true_pred_cnt=1705
acc.=0.987317 pre.=0.718500 rec.=0.751764 f1=0.734755
-----
```

```
epoch19 :
avg_training_loss = 0.0035804477263623336
used time = 19.692041158676147
tot_cnt=67650 acc_cnt=66810 true_cnt=2268 pred_cnt=2461 true_pred_cnt=1766
acc.=0.987583 pre.=0.717594 rec.=0.778660 f1=0.746881
-----
```

```
epoch20 :
avg_training_loss = 0.004230759744569073
used time = 19.727673053741455
tot_cnt=67650 acc_cnt=66780 true_cnt=2268 pred_cnt=2455 true_pred_cnt=1743
acc.=0.987140 pre.=0.709980 rec.=0.768519 f1=0.738090
-----
```

```
epoch21 :
avg_training_loss = 0.002590767511232631
used time = 19.69201374053955
tot_cnt=67650 acc_cnt=66793 true_cnt=2268 pred_cnt=2458 true_pred_cnt=1744
acc.=0.987332 pre.=0.709520 rec.=0.768959 f1=0.738045
-----
```

```
epoch22 :
avg_training_loss = 0.005424907827001857
used time = 19.717889070510864
tot_cnt=67650 acc_cnt=66843 true_cnt=2268 pred_cnt=2386 true_pred_cnt=1758
acc.=0.988071 pre.=0.736798 rec.=0.775132 f1=0.755479
-----
```

```
epoch23 :
avg_training_loss = 0.0037932050979043556
used time = 19.716975927352905
tot_cnt=67650 acc_cnt=66822 true_cnt=2268 pred_cnt=2456 true_pred_cnt=1765
acc.=0.987761 pre.=0.718648 rec.=0.778219 f1=0.747248
-----
```

```
epoch24 :
avg_training_loss = 0.0033109115334007686
used time = 19.554611444473267
tot_cnt=67650 acc_cnt=66840 true_cnt=2268 pred_cnt=2370 true_pred_cnt=1743
acc.=0.988027 pre.=0.735443 rec.=0.768519 f1=0.751617
-----
```

```
epoch25 :
avg_training_loss = 0.002151187714629286
used time = 19.579757690429688
tot_cnt=67650 acc_cnt=66807 true_cnt=2268 pred_cnt=2520 true_pred_cnt=1787
acc.=0.987539 pre.=0.709127 rec.=0.787919 f1=0.746449
-----
```

```
epoch26 :
avg_training_loss = 0.002612668932892206
used time = 19.616657257080078
tot_cnt=67650 acc_cnt=66794 true_cnt=2268 pred_cnt=2448 true_pred_cnt=1732
acc.=0.987347 pre.=0.707516 rec.=0.763668 f1=0.734521
-----
```

```
epoch27 :
avg_training_loss = 0.0022475968195697455
used time = 19.61948251724243
tot_cnt=67650 acc_cnt=66839 true_cnt=2268 pred_cnt=2386 true_pred_cnt=1746
acc.=0.988012 pre.=0.731769 rec.=0.769841 f1=0.750322
-----
```

```
epoch28 :
avg_training_loss = 0.0019063265539529756
used time = 19.624333143234253
tot_cnt=67650 acc_cnt=66821 true_cnt=2268 pred_cnt=2453 true_pred_cnt=1767
acc.=0.987746 pre.=0.720342 rec.=0.779101 f1=0.748570
-----
```

```
epoch29 :
avg_training_loss = 0.0015486612563996804
used time = 19.632856845855713
tot_cnt=67650 acc_cnt=66825 true_cnt=2268 pred_cnt=2421 true_pred_cnt=1760
acc.=0.987805 pre.=0.726972 rec.=0.776014 f1=0.750693
-----
```

```
epoch30 :
avg_training_loss = 0.0012934393300784853
used time = 19.651954412460327
tot_cnt=67650 acc_cnt=66833 true_cnt=2268 pred_cnt=2409 true_pred_cnt=1750
acc.=0.987923 pre.=0.726443 rec.=0.771605 f1=0.748343
```

```
-----
epoch31 :
avg_training_loss = 0.0021137552937184733
used time = 19.671063661575317
tot_cnt=67650 acc_cnt=66795 true_cnt=2268 pred_cnt=2379 true_pred_cnt=1708
acc.=0.987361 pre.=0.717949 rec.=0.753086 f1=0.735098
-----

epoch32 :
avg_training_loss = 0.004837282529966099
used time = 19.653356552124023
tot_cnt=67650 acc_cnt=66720 true_cnt=2268 pred_cnt=2346 true_pred_cnt=1618
acc.=0.986253 pre.=0.689685 rec.=0.713404 f1=0.701344
-----

epoch33 :
avg_training_loss = 0.004450279427325632
used time = 19.639087438583374
tot_cnt=67650 acc_cnt=66794 true_cnt=2268 pred_cnt=2355 true_pred_cnt=1690
acc.=0.987347 pre.=0.717622 rec.=0.745150 f1=0.731127
-----

epoch34 :
avg_training_loss = 0.0029680684326201913
used time = 19.654544353485107
tot_cnt=67650 acc_cnt=66797 true_cnt=2268 pred_cnt=2418 true_pred_cnt=1724
acc.=0.987391 pre.=0.712986 rec.=0.760141 f1=0.735809
-----

epoch35 :
avg_training_loss = 0.0026379800218296803
used time = 19.654576063156128
tot_cnt=67650 acc_cnt=66856 true_cnt=2268 pred_cnt=2457 true_pred_cnt=1800
acc.=0.988263 pre.=0.732601 rec.=0.793651 f1=0.761905
-----

epoch36 :
avg_training_loss = 0.002089542901422095
used time = 19.640426874160767
tot_cnt=67650 acc_cnt=66817 true_cnt=2268 pred_cnt=2397 true_pred_cnt=1729
acc.=0.987687 pre.=0.721318 rec.=0.762346 f1=0.741265
-----

epoch37 :
avg_training_loss = 0.0012169580055972722
used time = 19.66243553161621
tot_cnt=67650 acc_cnt=66843 true_cnt=2268 pred_cnt=2456 true_pred_cnt=1782
acc.=0.988071 pre.=0.725570 rec.=0.785714 f1=0.754445
-----

epoch38 :
avg_training_loss = 0.001587003469467163
used time = 19.655458211898804
tot_cnt=67650 acc_cnt=66831 true_cnt=2268 pred_cnt=2457 true_pred_cnt=1781
acc.=0.987894 pre.=0.724868 rec.=0.785273 f1=0.753862
-----

epoch39 :
avg_training_loss = 0.0023877327367076723
used time = 19.632664680480957
tot_cnt=67650 acc_cnt=66825 true_cnt=2268 pred_cnt=2437 true_pred_cnt=1756
acc.=0.987805 pre.=0.720558 rec.=0.774250 f1=0.746440
-----

epoch0 :
avg_training_loss = 0.1184665274432325
used time = 20.83985185623169
tot_cnt=67650 acc_cnt=66167 true_cnt=2268 pred_cnt=2297 true_pred_cnt=1154
acc.=0.978078 pre.=0.502394 rec.=0.508818 f1=0.505586
-----

epoch1 :
avg_training_loss = 0.05643017836443082
used time = 20.819807291030884
tot_cnt=67650 acc_cnt=66484 true_cnt=2268 pred_cnt=2332 true_pred_cnt=1442
acc.=0.982764 pre.=0.618353 rec.=0.635802 f1=0.626957
-----

epoch2 :
avg_training_loss = 0.04221232106366495
used time = 20.851625204086304
tot_cnt=67650 acc_cnt=66600 true_cnt=2268 pred_cnt=2414 true_pred_cnt=1585
acc.=0.984479 pre.=0.656587 rec.=0.698854 f1=0.677061
-----

epoch3 :
avg_training_loss = 0.03455113989161694
used time = 20.84733271598816
tot_cnt=67650 acc_cnt=66709 true_cnt=2268 pred_cnt=2307 true_pred_cnt=1623
acc.=0.986090 pre.=0.703511 rec.=0.715608 f1=0.709508
-----

epoch4 :
```

```
avg_training_loss = 0.028883445919968012
used time = 20.85504961013794
tot_cnt=67650 acc_cnt=66703 true_cnt=2268 pred_cnt=2291 true_pred_cnt=1616
acc.=0.986001 pre.=0.705369 rec.=0.712522 f1=0.708927
-----

epoch5 :
avg_training_loss = 0.02387357696773499
used time = 20.85442352294922
tot_cnt=67650 acc_cnt=66706 true_cnt=2268 pred_cnt=2426 true_pred_cnt=1686
acc.=0.986046 pre.=0.694971 rec.=0.743386 f1=0.718364
-----

epoch6 :
avg_training_loss = 0.01870395818094569
used time = 20.828036785125732
tot_cnt=67650 acc_cnt=66794 true_cnt=2268 pred_cnt=2451 true_pred_cnt=1753
acc.=0.987347 pre.=0.715218 rec.=0.772928 f1=0.742954
-----

epoch7 :
avg_training_loss = 0.013299487707183116
used time = 20.84661364555359
tot_cnt=67650 acc_cnt=66784 true_cnt=2268 pred_cnt=2351 true_pred_cnt=1691
acc.=0.987199 pre.=0.719268 rec.=0.745591 f1=0.732193
-----

epoch8 :
avg_training_loss = 0.011776898789593555
used time = 20.844424962997437
tot_cnt=67650 acc_cnt=66770 true_cnt=2268 pred_cnt=2374 true_pred_cnt=1703
acc.=0.986992 pre.=0.717355 rec.=0.750882 f1=0.733735
-----

epoch9 :
avg_training_loss = 0.009738365496237448
used time = 20.84403705596924
tot_cnt=67650 acc_cnt=66782 true_cnt=2268 pred_cnt=2464 true_pred_cnt=1741
acc.=0.987169 pre.=0.706575 rec.=0.767637 f1=0.735841
-----

epoch10 :
avg_training_loss = 0.00854043228419747
used time = 20.842007637023926
tot_cnt=67650 acc_cnt=66780 true_cnt=2268 pred_cnt=2472 true_pred_cnt=1740
acc.=0.987140 pre.=0.703883 rec.=0.767196 f1=0.734177
-----

epoch11 :
avg_training_loss = 0.006857819913879154
used time = 20.835010528564453
tot_cnt=67650 acc_cnt=66798 true_cnt=2268 pred_cnt=2477 true_pred_cnt=1760
acc.=0.987406 pre.=0.710537 rec.=0.776014 f1=0.741834
-----

epoch12 :
avg_training_loss = 0.005968799741249385
used time = 20.83704972267151
tot_cnt=67650 acc_cnt=66730 true_cnt=2268 pred_cnt=2625 true_pred_cnt=1786
acc.=0.986401 pre.=0.680381 rec.=0.787478 f1=0.730022
-----

epoch13 :
avg_training_loss = 0.006062506690738708
used time = 20.836612224578857
tot_cnt=67650 acc_cnt=66812 true_cnt=2268 pred_cnt=2427 true_pred_cnt=1738
acc.=0.987613 pre.=0.716110 rec.=0.766314 f1=0.740362
-----

epoch14 :
avg_training_loss = 0.00541905249197652
used time = 20.916601419448853
tot_cnt=67650 acc_cnt=66811 true_cnt=2268 pred_cnt=2373 true_pred_cnt=1718
acc.=0.987598 pre.=0.723978 rec.=0.757496 f1=0.740358
-----

epoch15 :
avg_training_loss = 0.004140850596540556
used time = 20.813061237335205
tot_cnt=67650 acc_cnt=66786 true_cnt=2268 pred_cnt=2430 true_pred_cnt=1730
acc.=0.987228 pre.=0.711934 rec.=0.762787 f1=0.736484
-----

epoch16 :
avg_training_loss = 0.004390836700679749
used time = 20.82715892791748
tot_cnt=67650 acc_cnt=66819 true_cnt=2268 pred_cnt=2460 true_pred_cnt=1771
acc.=0.987716 pre.=0.719919 rec.=0.780864 f1=0.749154
-----

epoch17 :
avg_training_loss = 0.0034488423133459617
used time = 20.847604036331177
```

```
tot_cnt=67650 acc_cnt=66841 true_cnt=2268 pred_cnt=2378 true_pred_cnt=1748
acc.=0.988041 pre.=0.735071 rec.=0.770723 f1=0.752475
-----
```

```
epoch18 :
avg_training_loss = 0.0038590335001157023
used time = 20.82987689971924
tot_cnt=67650 acc_cnt=66789 true_cnt=2268 pred_cnt=2406 true_pred_cnt=1715
acc.=0.987273 pre.=0.712801 rec.=0.756173 f1=0.733847
-----
```

```
epoch19 :
avg_training_loss = 0.003470451109052643
used time = 20.832133293151855
tot_cnt=67650 acc_cnt=66790 true_cnt=2268 pred_cnt=2451 true_pred_cnt=1739
acc.=0.987288 pre.=0.709506 rec.=0.766755 f1=0.737021
-----
```

```
epoch20 :
avg_training_loss = 0.002291988200090063
used time = 20.871744632720947
tot_cnt=67650 acc_cnt=66820 true_cnt=2268 pred_cnt=2353 true_pred_cnt=1717
acc.=0.987731 pre.=0.729707 rec.=0.757055 f1=0.743129
-----
```

```
epoch21 :
avg_training_loss = 0.003886724316229032
used time = 20.83634090423584
tot_cnt=67650 acc_cnt=66798 true_cnt=2268 pred_cnt=2452 true_pred_cnt=1737
acc.=0.987406 pre.=0.708401 rec.=0.765873 f1=0.736017
-----
```

```
epoch22 :
avg_training_loss = 0.003306699080730048
used time = 20.85436725616455
tot_cnt=67650 acc_cnt=66808 true_cnt=2268 pred_cnt=2446 true_pred_cnt=1744
acc.=0.987554 pre.=0.713001 rec.=0.768959 f1=0.739924
-----
```

```
epoch23 :
avg_training_loss = 0.0035328909637421134
used time = 20.831851482391357
tot_cnt=67650 acc_cnt=66808 true_cnt=2268 pred_cnt=2496 true_pred_cnt=1776
acc.=0.987554 pre.=0.711538 rec.=0.783069 f1=0.745592
-----
```

```
epoch24 :
avg_training_loss = 0.002895513857443502
used time = 20.8404483795166
tot_cnt=67650 acc_cnt=66780 true_cnt=2268 pred_cnt=2556 true_pred_cnt=1779
acc.=0.987140 pre.=0.696009 rec.=0.784392 f1=0.737562
-----
```

```
epoch25 :
avg_training_loss = 0.00394537786799153
used time = 20.811722993850708
tot_cnt=67650 acc_cnt=66703 true_cnt=2268 pred_cnt=2382 true_pred_cnt=1621
acc.=0.986001 pre.=0.680521 rec.=0.714727 f1=0.697204
-----
```

```
epoch26 :
avg_training_loss = 0.0033991824923537846
used time = 20.833577394485474
tot_cnt=67650 acc_cnt=66773 true_cnt=2268 pred_cnt=2428 true_pred_cnt=1710
acc.=0.987036 pre.=0.704283 rec.=0.753968 f1=0.728279
-----
```

```
epoch27 :
avg_training_loss = 0.001769309672783679
used time = 20.830949306488037
tot_cnt=67650 acc_cnt=66782 true_cnt=2268 pred_cnt=2440 true_pred_cnt=1720
acc.=0.987169 pre.=0.704918 rec.=0.758377 f1=0.730671
-----
```

```
epoch28 :
avg_training_loss = 0.0017362996114520576
used time = 20.81636953353882
tot_cnt=67650 acc_cnt=66795 true_cnt=2268 pred_cnt=2468 true_pred_cnt=1749
acc.=0.987361 pre.=0.708671 rec.=0.771164 f1=0.738598
-----
```

```
epoch29 :
avg_training_loss = 0.003265247335584145
used time = 20.827602863311768
tot_cnt=67650 acc_cnt=66744 true_cnt=2268 pred_cnt=2551 true_pred_cnt=1754
acc.=0.986608 pre.=0.687574 rec.=0.773369 f1=0.727952
-----
```

```
epoch30 :
avg_training_loss = 0.0024095799509934552
used time = 20.858970880508423
tot_cnt=67650 acc_cnt=66791 true_cnt=2268 pred_cnt=2417 true_pred_cnt=1721
acc.=0.987302 pre.=0.712040 rec.=0.758818 f1=0.734685
```

```
-----
epoch31 :
avg_training_loss =  0.0019495656171182947
used time = 20.835951805114746
tot_cnt=67650 acc_cnt=66821 true_cnt=2268 pred_cnt=2473 true_pred_cnt=1766
acc.=0.987746 pre.=0.714112 rec.=0.778660 f1=0.744991
-----

epoch32 :
avg_training_loss =  0.0013937655631012804
used time = 20.85680842399597
tot_cnt=67650 acc_cnt=66833 true_cnt=2268 pred_cnt=2369 true_pred_cnt=1735
acc.=0.987923 pre.=0.732377 rec.=0.764991 f1=0.748329
-----

epoch33 :
avg_training_loss =  0.0018129758243485697
used time = 20.85465717315674
tot_cnt=67650 acc_cnt=66815 true_cnt=2268 pred_cnt=2415 true_pred_cnt=1745
acc.=0.987657 pre.=0.722567 rec.=0.769400 f1=0.745249
-----

epoch34 :
avg_training_loss =  0.0018806067977364608
used time = 20.872272968292236
tot_cnt=67650 acc_cnt=66832 true_cnt=2268 pred_cnt=2411 true_pred_cnt=1754
acc.=0.987908 pre.=0.727499 rec.=0.773369 f1=0.749733
-----

epoch35 :
avg_training_loss =  0.001680886064927409
used time = 20.86317276954651
tot_cnt=67650 acc_cnt=66811 true_cnt=2268 pred_cnt=2441 true_pred_cnt=1755
acc.=0.987598 pre.=0.718968 rec.=0.773810 f1=0.745381
-----

epoch36 :
avg_training_loss =  0.0015619902864215881
used time = 20.848889350891113
tot_cnt=67650 acc_cnt=66834 true_cnt=2268 pred_cnt=2332 true_pred_cnt=1726
acc.=0.987938 pre.=0.740137 rec.=0.761023 f1=0.750435
-----

epoch37 :
avg_training_loss =  0.0014186237506040437
used time = 20.8558132648468
tot_cnt=67650 acc_cnt=66809 true_cnt=2268 pred_cnt=2367 true_pred_cnt=1715
acc.=0.987568 pre.=0.724546 rec.=0.756173 f1=0.740022
-----

epoch38 :
avg_training_loss =  0.001379901264596173
used time = 20.83449077606201
tot_cnt=67650 acc_cnt=66809 true_cnt=2268 pred_cnt=2390 true_pred_cnt=1728
acc.=0.987568 pre.=0.723013 rec.=0.761905 f1=0.741949
-----

epoch39 :
avg_training_loss =  0.001497268090097923
used time = 20.828065395355225
tot_cnt=67650 acc_cnt=66800 true_cnt=2268 pred_cnt=2222 true_pred_cnt=1672
acc.=0.987435 pre.=0.752475 rec.=0.737213 f1=0.744766
-----

max F1_measure for BertAndLinear = 0.7082
max F1_measure for BertAndTransformer = 0.7220
max F1_measure for RoBERTaAndLinear = 0.7619
max F1_measure for RoBERTaAndTransformer = 0.7525

进程结束,退出0
```