

```
1 ssh://sangsq@10.50.221.195:22/home/sangsq/anaconda3/bin/
2 python -u /home/sangsq/.pycharm_helpers/pydev/pydevconsole.py --mode=server
3
4 import sys; print('Python %s on %s' % (sys.version, sys.
5 platform))
6 sys.path.extend(['/home/sangsq/flower/PSEP', '/home/sangsq/
7 flower/PSEP'])
8
9 Python 3.7.3 (default, Mar 27 2019, 22:11:17)
10 Type 'copyright', 'credits' or 'license' for more
11 information
12 IPython 7.4.0 -- An enhanced Interactive Python. Type '?' for help.
13 PyDev console: using IPython 7.4.0
14
15 Python 3.7.3 (default, Mar 27 2019, 22:11:17)
16 [GCC 7.3.0] on linux
17 In[2]: runfile('/home/sangsq/flower/PSEP/model/fm-psep.py',
18 ' ', wdir='/home/sangsq/flower/PSEP/model')
19 loading data
20 remove 0 isolated drugs: []
21 remove finished
22 963 polypharmacy side effects
23 data has been loaded
24 cuda
25 model training ...
26
27 0 loss: tensor(1.6625, device='cuda:0', grad_fn=<
28 AddBackward0>) auprc: 0.5008348478393266 auroc: 0.
29 49992021663216035 ap: 0.5008350792331348
30
31 0 loss: tensor(1.6625, device='cuda:0', grad_fn=<
32 AddBackward0>) auprc: 0.5005589181417129 auroc: 0.
33 5002122995763323 ap: 0.5005610113232122 time: 64.
34 29205441474915
35
36 1 loss: tensor(1.5735, device='cuda:0', grad_fn=<
37 AddBackward0>) auprc: 0.5008883351788855 auroc: 0.
38 5003338823115011 ap: 0.5008885604110246
39
40 1 loss: tensor(1.5735, device='cuda:0', grad_fn=<
41 AddBackward0>) auprc: 0.5005302691540733 auroc: 0.
42 5005761017941475 ap: 0.5005322751093758 time: 56.
43 94180774688721
44
45 2 loss: tensor(1.5136, device='cuda:0', grad_fn=<
46 AddBackward0>) auprc: 0.5008864784128924 auroc: 0.
47 500564454267346 ap: 0.5008867275301081
48
49 2 loss: tensor(1.5136, device='cuda:0', grad_fn=<
50 AddBackward0>) auprc: 0.5006953633166145 auroc: 0.
51 5010012412040477 ap: 0.5006973844454039 time: 58.
52 22238850593567
53
54 29
```

```
30 3 loss: tensor(1.4742, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5010641571247851 auroc: 0.
    500972006155408 ap: 0.5010644225229307
31 3 loss: tensor(1.4742, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.50084103251749 auroc: 0.
    5013666494358725 ap: 0.5008430660670324 time: 58.
    216225147247314
32
33 4 loss: tensor(1.4493, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.501334679648169 auroc: 0.
    5014554975401098 ap: 0.5013349069036422
34 4 loss: tensor(1.4493, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5010368143228522 auroc: 0.
    5017759225351274 ap: 0.5010387964014491 time: 59.
    30510902404785
35
36 5 loss: tensor(1.4335, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5015001745205355 auroc: 0.
    5019001824228155 ap: 0.5015003998171226
37 5 loss: tensor(1.4335, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5013005258256678 auroc: 0.
    5023994978829087 ap: 0.5013025176550434 time: 59.
    15782117843628
38
39 6 loss: tensor(1.4227, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5019877956523736 auroc: 0.
    5026703314188266 ap: 0.5019880431310162
40 6 loss: tensor(1.4227, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5018334597198405 auroc: 0.
    5032304795370564 ap: 0.5018354523252269 time: 60.
    26007556915283
41
42 7 loss: tensor(1.4148, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5022150664084453 auroc: 0.
    50349261206552 ap: 0.5022153098389308
43 7 loss: tensor(1.4148, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5022155584394892 auroc: 0.
    5042112075826053 ap: 0.5022175540752689 time: 58.
    8637957572937
44
45 8 loss: tensor(1.4084, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.502392829459828 auroc: 0.
    5044340065257746 ap: 0.5023930694756529
46 8 loss: tensor(1.4084, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5025458206195121 auroc: 0.
    5053159140466432 ap: 0.502547948769728 time: 58.
    82279706001282
47
48 9 loss: tensor(1.4034, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.5025089748006994 auroc: 0.
    5054983722765933 ap: 0.5025091896613452
```

```
49 9    loss: tensor(1.4034, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5028790158671804    auroc: 0.
      5065560828926692    ap: 0.5028811280837601    time: 57.
      418492794036865
50
51 10   loss: tensor(1.3992, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.503109617127563    auroc: 0.
      5071190567031687    ap: 0.5031098405635721
52 10   loss: tensor(1.3992, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5034761147918874    auroc: 0.
      5081357321888633    ap: 0.5034781056734251    time: 57.
      809643507003784
53
54 11   loss: tensor(1.3958, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5037545621469228    auroc: 0.
      5087324276464169    ap: 0.5037547693892606
55 11   loss: tensor(1.3958, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5045666663651444    auroc: 0.
      5101720587610046    ap: 0.5045685621367554    time: 57.
      971930503845215
56
57 12   loss: tensor(1.3927, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5054219781215266    auroc: 0.
      5113128274870076    ap: 0.5054221819390327
58 12   loss: tensor(1.3927, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5063954234290876    auroc: 0.
      5129982596277992    ap: 0.5063972936945679    time: 57.
      487335205078125
59
60 13   loss: tensor(1.3901, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5076638875780011    auroc: 0.
      5146598874842452    ap: 0.5076640930110239
61 13   loss: tensor(1.3901, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5088647098805943    auroc: 0.
      5166229891006519    ap: 0.5088666013278407    time: 57.
      92876863479614
62
63 14   loss: tensor(1.3879, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5104046193765396    auroc: 0.
      5186503522963806    ap: 0.5104048394709269
64 14   loss: tensor(1.3879, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5119471569864552    auroc: 0.
      5210632332420656    ap: 0.5119491734520306    time: 57.
      37669253349304
65
66 15   loss: tensor(1.3860, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5139530817803577    auroc: 0.
      5237461671970673    ap: 0.5139533055051392
67 15   loss: tensor(1.3860, device='cuda:0', grad_fn=<
      AddBackward0>)    auprc: 0.5158300017712877    auroc: 0.
      5265936051052624    ap: 0.515831753405562    time: 57.
```

```
67 41507959365845
68
69 16 loss: tensor(1.3841, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5182998248095426 auroc: 0.
  5303534938271525 ap: 0.5183000547110483
70 16 loss: tensor(1.3841, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5205521034953965 auroc: 0.
  5336006030636096 ap: 0.5205538710570066 time: 56.
  87591528892517
71
72 17 loss: tensor(1.3823, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5232891946429019 auroc: 0.
  5381806361490191 ap: 0.5232893911781737
73 17 loss: tensor(1.3823, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5264222715449912 auroc: 0.
  5422985240294956 ap: 0.5264240262932374 time: 57.
  406548738479614
74
75 18 loss: tensor(1.3802, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5294088081713949 auroc: 0.
  5476991699322299 ap: 0.5294090117816396
76 18 loss: tensor(1.3802, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5332234133507423 auroc: 0.
  5525435462275262 ap: 0.5332253960079727 time: 57.
  41720128059387
77
78 19 loss: tensor(1.3779, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5362763162701409 auroc: 0.
  5583553164314576 ap: 0.5362764919617011
79 19 loss: tensor(1.3779, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5408040952617826 auroc: 0.
  5639735303846314 ap: 0.5408059746672692 time: 57.
  224305629730225
80
81 20 loss: tensor(1.3751, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5444283104110264 auroc: 0.
  570136220234158 ap: 0.5444284630175654
82 20 loss: tensor(1.3751, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5496957515319618 auroc: 0.
  5765151546401457 ap: 0.5496973230213795 time: 58.
  16810441017151
83
84 21 loss: tensor(1.3716, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5540243325994615 auroc: 0.
  5829623661145817 ap: 0.5540244739506437
85 21 loss: tensor(1.3716, device='cuda:0', grad_fn=<
  AddBackward0>) auprc: 0.5603739034124783 auroc: 0.
  5902146362829744 ap: 0.5603753156299567 time: 57.
  391735792160034
86
87 22 loss: tensor(1.3672, device='cuda:0', grad_fn=<
```

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87 AddBackward0>) auprc: 0.5651587189568947 auroc: 0.  
5964017363531462 ap: 0.5651588525568747  
88 22 loss: tensor(1.3672, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.5725778857340623 auroc: 0.  
6044669412732937 ap: 0.5725792536807974 time: 57.  
6866819858551  
89  
90 23 loss: tensor(1.3615, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.5780039558117853 auroc: 0.  
6105656675479628 ap: 0.5780040880027214  
91 23 loss: tensor(1.3615, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.5865609835682003 auroc: 0.  
6194199267987668 ap: 0.5865623325236377 time: 56.  
86777877807617  
92  
93 24 loss: tensor(1.3539, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.5929921099725777 auroc: 0.  
6256210677431233 ap: 0.5929922341499456  
94 24 loss: tensor(1.3539, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6026981761982383 auroc: 0.  
6352540239191549 ap: 0.6026995115085401 time: 57.  
34931039810181  
95  
96 25 loss: tensor(1.3439, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6101262168315215 auroc: 0.  
6419986696318527 ap: 0.6101263354998152  
97 25 loss: tensor(1.3439, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6208498933989425 auroc: 0.  
6523153149784325 ap: 0.620851214904287 time: 57.  
90853238105774  
98  
99 26 loss: tensor(1.3310, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6291148832695279 auroc: 0.  
6596875798270432 ap: 0.6291149983398744  
100 26 loss: tensor(1.3310, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6409463423199558 auroc: 0.  
6707294625296811 ap: 0.6409476606784574 time: 58.  
52464723587036  
101  
102 27 loss: tensor(1.3141, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6498071883246708 auroc: 0.  
6789441944057641 ap: 0.6498073020861623  
103 27 loss: tensor(1.3141, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6623599989950957 auroc: 0.  
6903916730031725 ap: 0.6623613052030447 time: 58.  
42132520675659  
104  
105 28 loss: tensor(1.2929, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.6714609722335575 auroc: 0.  
6989616686892131 ap: 0.6714610828838959  
106 28 loss: tensor(1.2929, device='cuda:0', grad_fn=<
```

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106 AddBackward0>) auprc: 0.6844236535175601 auroc: 0.  
    710706913795872 ap: 0.6844249243528803 time: 58.  
    00762367248535  
107  
108 29 loss: tensor(1.2666, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.692765999229658 auroc: 0.  
    719087603231835 ap: 0.69276610835265  
109 29 loss: tensor(1.2666, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7061867855356243 auroc: 0.  
    730951652806731 ap: 0.7061880078280498 time: 58.  
    59912991523743  
110  
111 30 loss: tensor(1.2352, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7128001396074526 auroc: 0.  
    7383690659766262 ap: 0.7128002479665798  
112 30 loss: tensor(1.2352, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7263198834100625 auroc: 0.  
    7500591480609248 ap: 0.7263210647445879 time: 58.  
    2259304523468  
113  
114 31 loss: tensor(1.1989, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7317403689691958 auroc: 0.  
    7565785172029668 ap: 0.7317404772609699  
115 31 loss: tensor(1.1989, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7447698522480614 auroc: 0.  
    7676985483707898 ap: 0.7447709956254269 time: 59.  
    13410806655884  
116  
117 32 loss: tensor(1.1592, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7491548253103616 auroc: 0.  
    7732187599911604 ap: 0.7491549336830314  
118 32 loss: tensor(1.1592, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.761893879225802 auroc: 0.  
    7839993551515947 ap: 0.7618950106773194 time: 58.  
    96684670448303  
119  
120 33 loss: tensor(1.1184, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7657369126544806 auroc: 0.  
    7889334811257458 ap: 0.7657370219777686  
121 33 loss: tensor(1.1184, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7782444068290657 auroc: 0.  
    7993294595578471 ap: 0.7782455163337629 time: 59.  
    66036605834961  
122  
123 34 loss: tensor(1.0788, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.782027009498699 auroc: 0.  
    8040006859102906 ap: 0.7820271200254428  
124 34 loss: tensor(1.0788, device='cuda:0', grad_fn=<  
    AddBackward0>) auprc: 0.7943086091309187 auroc: 0.  
    8141354141665803 ap: 0.7943097288875854 time: 60.  
    273072481155396
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125
126 35 loss: tensor(1.0418, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.798568062869534 auroc: 0.
    8187984503841106 ap: 0.7985681745892134
127 35 loss: tensor(1.0418, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8100332021139536 auroc: 0.
    8284795979086649 ap: 0.8100342827443977 time: 60.
    015329360961914
128
129 36 loss: tensor(1.0082, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8137900234016795 auroc: 0.
    832846078607222 ap: 0.8137901437516663
130 36 loss: tensor(1.0082, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8248699210445992 auroc: 0.
    8422049682874918 ap: 0.8248710365592884 time: 59.
    17394304275513
131
132 37 loss: tensor(0.9757, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8277126767279637 auroc: 0.
    8461559319725863 ap: 0.8277127936374872
133 37 loss: tensor(0.9757, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8383462829672278 auroc: 0.
    8550967342533285 ap: 0.8383473778007087 time: 59.
    950395584106445
134
135 38 loss: tensor(0.9425, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.840784849103624 auroc: 0.
    8587006197855861 ap: 0.8407849664462199
136 38 loss: tensor(0.9425, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8506679574904132 auroc: 0.
    8669013872890403 ap: 0.8506689905448724 time: 59.
    25424313545227
137
138 39 loss: tensor(0.9084, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8529129070879261 auroc: 0.
    8699971988533127 ap: 0.8529130286729804
139 39 loss: tensor(0.9084, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8619929743123219 auroc: 0.
    8774480498563374 ap: 0.8619939601282146 time: 59.
    83637452125549
140
141 40 loss: tensor(0.8753, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.863300402469485 auroc: 0.
    8799316770155122 ap: 0.8633005182938912
142 40 loss: tensor(0.8753, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8719098186006173 auroc: 0.
    8868094986131365 ap: 0.8719107731898256 time: 60.
    31297993659973
143
144 41 loss: tensor(0.8430, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.8727546335926943 auroc: 0.
```

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144 8890291583296985      ap: 0.8727547457792896
145 41    loss: tensor(0.8430, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8803990790611965      auroc: 0.
    8950486487911321      ap: 0.8803999805518512      time: 60.
    20615363121033
146
147 42    loss: tensor(0.8146, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8806459614163067      auroc: 0.
    8966793835346142      ap: 0.8806460693646572
148 42    loss: tensor(0.8146, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8875680200808115      auroc: 0.
    9019529098942121      ap: 0.8875688812252017      time: 59.
    8356409072876
149
150 43    loss: tensor(0.7900, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8875013101245174      auroc: 0.
    9029637393226483      ap: 0.8875014071093237
151 43    loss: tensor(0.7900, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.893364448941376      auroc: 0.
    9074821196999169      ap: 0.8933652918743945      time: 60.
    29323410987854
152
153 44    loss: tensor(0.7698, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8928175745818867      auroc: 0.
    9081001277663664      ap: 0.8928176674830811
154 44    loss: tensor(0.7698, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8981154913128986      auroc: 0.
    91208208049547      ap: 0.8981163097587499      time: 60.
    548378705978394
155
156 45    loss: tensor(0.7527, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.8972199146761338      auroc: 0.
    9124330412230722      ap: 0.8972200048922561
157 45    loss: tensor(0.7527, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.9021534739008844      auroc: 0.
    9160278749224626      ap: 0.9021543198409844      time: 60.
    850061655044556
158
159 46    loss: tensor(0.7374, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.9010352164862833      auroc: 0.
    9161043946543453      ap: 0.9010353059031149
160 46    loss: tensor(0.7374, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.9054891284979116      auroc: 0.
    9192919811350917      ap: 0.9054899310843039      time: 59.
    35487985610962
161
162 47    loss: tensor(0.7231, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.9044090189875618      auroc: 0.
    9192593119699821      ap: 0.9044091024816836
163 47    loss: tensor(0.7231, device='cuda:0', grad_fn=<
    AddBackward0>)      auprc: 0.9082217896082926      auroc: 0.
```

```
163 9220058287789102      ap: 0.9082225753402831      time: 60.  
    12652850151062  
164  
165 48  loss: tensor(0.7106, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.907108545054138  auroc: 0.  
    9220214022658251      ap: 0.9071086341292073  
166 48  loss: tensor(0.7106, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9107423654662735  auroc: 0.  
    9245317566091382      ap: 0.9107432270241794      time: 60.  
    41358208656311  
167  
168 49  loss: tensor(0.6987, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9097570500647689  auroc: 0.  
    924618783943077      ap: 0.9097571382212912  
169 49  loss: tensor(0.6987, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9129822102750237  auroc: 0.  
    9268044511985428      ap: 0.9129830548147347      time: 60.  
    85655117034912  
170  
171 50  loss: tensor(0.6885, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9118152317754445  auroc: 0.  
    9267322421510736      ap: 0.9118153140159085  
172 50  loss: tensor(0.6885, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.914784647914414  auroc: 0.  
    9286953344465173      ap: 0.9147854376882893      time: 61.  
    012587785720825  
173  
174 51  loss: tensor(0.6795, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9135768563708201  auroc: 0.  
    9286517769454081      ap: 0.9135769451847847  
175 51  loss: tensor(0.6795, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9164247240904989  auroc: 0.  
    9304075047273153      ap: 0.916425497143466      time: 59.  
    72668433189392  
176  
177 52  loss: tensor(0.6721, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9151520728156466  auroc: 0.  
    9302882946538086      ap: 0.9151521533899093  
178 52  loss: tensor(0.6721, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9179220951722729  auroc: 0.  
    9319463396635372      ap: 0.917922713817471      time: 59.  
    36303758621216  
179  
180 53  loss: tensor(0.6650, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9165057782730991  auroc: 0.  
    9317190806325385      ap: 0.916505858757848  
181 53  loss: tensor(0.6650, device='cuda:0', grad_fn=<  
        AddBackward0>)  auprc: 0.9191109611543965  auroc: 0.  
    9331807096798034      ap: 0.9191112966161344      time: 59.  
    893754720687866  
182
```

```
183 54    loss: tensor(0.6587, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9177028662387986    auroc: 0.  
    9329228507968836    ap: 0.917702947826173  
184 54    loss: tensor(0.6587, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9201725999623839    auroc: 0.  
    9342597052820434    ap: 0.9201728316346077    time: 58.  
    330307483673096  
185  
186 55    loss: tensor(0.6528, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9188380850171288    auroc: 0.  
    9340636595702991    ap: 0.918838188515427  
187 55    loss: tensor(0.6528, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9212103077421461    auroc: 0.  
    9352822366760063    ap: 0.9212105063591599    time: 58.  
    52987599372864  
188  
189 56    loss: tensor(0.6481, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9195765892482339    auroc: 0.  
    9348818831703184    ap: 0.91957661399388  
190 56    loss: tensor(0.6481, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9220914031656026    auroc: 0.  
    9361502709606149    ap: 0.9220915989400732    time: 59.  
    5703444480896  
191  
192 57    loss: tensor(0.6433, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9205057381559159    auroc: 0.  
    9357369513956081    ap: 0.9205057581071229  
193 57    loss: tensor(0.6433, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9228649188973126    auroc: 0.  
    9369087511853751    ap: 0.9228651184535195    time: 59.  
    817768573760986  
194  
195 58    loss: tensor(0.6391, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9213188313254965    auroc: 0.  
    9365438070448237    ap: 0.9213188438245178  
196 58    loss: tensor(0.6391, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9236217482853956    auroc: 0.  
    9376391114708797    ap: 0.9236219568977467    time: 60.  
    2378191947937  
197  
198 59    loss: tensor(0.6359, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9219389994923025    auroc: 0.  
    9371531176016998    ap: 0.9219390035559336  
199 59    loss: tensor(0.6359, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9242700383279854    auroc: 0.  
    9382664615438807    ap: 0.9242702455270418    time: 60.  
    49911952018738  
200  
201 60    loss: tensor(0.6324, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9226520423113906    auroc: 0.  
    9378070293375431    ap: 0.9226521195135872
```

```
202 60    loss: tensor(0.6324, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9248079297734548    auroc: 0.  
    9387907570201935    ap: 0.9248081527264945    time: 59.  
    92832565307617  
203  
204 61    loss: tensor(0.6296, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9232300023926457    auroc: 0.  
    9383434753560591    ap: 0.9232300768439821  
205 61    loss: tensor(0.6296, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9253267170616768    auroc: 0.  
    9392886146586893    ap: 0.9253269406805195    time: 59.  
    64513444900513  
206  
207 62    loss: tensor(0.6276, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9235203507646331    auroc: 0.  
    9386934961979018    ap: 0.9235203807041881  
208 62    loss: tensor(0.6276, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9258179968304744    auroc: 0.  
    9397534740762119    ap: 0.9258182236757934    time: 61.  
    57697582244873  
209  
210 63    loss: tensor(0.6254, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9238556525772541    auroc: 0.  
    9390856827377287    ap: 0.9238556633502841  
211 63    loss: tensor(0.6254, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9262514699271105    auroc: 0.  
    9401623137634034    ap: 0.9262517006996711    time: 59.  
    88698387145996  
212  
213 64    loss: tensor(0.6229, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9244107742518817    auroc: 0.  
    9395651037989328    ap: 0.9244108434522793  
214 64    loss: tensor(0.6229, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9266934615740171    auroc: 0.  
    9405726360615221    ap: 0.9266936900199282    time: 60.  
    967631101608276  
215  
216 65    loss: tensor(0.6203, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9249949521026156    auroc: 0.  
    9400465914662981    ap: 0.9249949630513757  
217 65    loss: tensor(0.6203, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9271066357830047    auroc: 0.  
    9409511585259672    ap: 0.9271068668827734    time: 59.  
    2228946685791  
218  
219 66    loss: tensor(0.6191, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9251557648800167    auroc: 0.  
    9402491409268555    ap: 0.9251557866855831  
220 66    loss: tensor(0.6191, device='cuda:0', grad_fn=<  
    AddBackward0>)    auprc: 0.9274748475679966    auroc: 0.  
    9412823694608508    ap: 0.9274750831671247    time: 60.
```

```
220 21004128456116
221
222 67 loss: tensor(0.6173, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9255522868520957 auroc: 0.
    9405998928402416 ap: 0.9255523607494281
223 67 loss: tensor(0.6173, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9278315979760907 auroc: 0.
    9415953076530029 ap: 0.9278318048805656 time: 61.
    19207572937012
224
225 68 loss: tensor(0.6155, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9258779974467376 auroc: 0.
    9409432490530314 ap: 0.925878082667633
226 68 loss: tensor(0.6155, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9281602191310151 auroc: 0.
    9418770984386772 ap: 0.9281604457360612 time: 60.
    31421875953674
227
228 69 loss: tensor(0.6137, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9264211954732807 auroc: 0.
    9412719433188353 ap: 0.9264212760386719
229 69 loss: tensor(0.6137, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9284745892116075 auroc: 0.
    942139277074939 ap: 0.9284748101866508 time: 61.
    18230867385864
230
231 70 loss: tensor(0.6126, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9266108402127824 auroc: 0.
    9414838390177152 ap: 0.9266108458781289
232 70 loss: tensor(0.6126, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9287904088448525 auroc: 0.
    9424006072768556 ap: 0.9287906358424104 time: 58.
    417171478271484
233
234 71 loss: tensor(0.6113, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9268978732702601 auroc: 0.
    9417313289035123 ap: 0.9268979424448074
235 71 loss: tensor(0.6113, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9290740920056821 auroc: 0.
    942630886324632 ap: 0.9290743180729835 time: 62.
    29420804977417
236
237 72 loss: tensor(0.6103, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9270687446957151 auroc: 0.
    941892235880394 ap: 0.9270687561945218
238 72 loss: tensor(0.6103, device='cuda:0', grad_fn=<
    AddBackward0>) auprc: 0.9293350354178342 auroc: 0.
    9428422798083925 ap: 0.9293352588270047 time: 61.
    72506523132324
239
240 73 loss: tensor(0.6091, device='cuda:0', grad_fn=<
```

```
240 AddBackward0>) auprc: 0.9274359640595599 auroc: 0.  
9421062599806499 ap: 0.9274360437959539  
241 73 loss: tensor(0.6091, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.929586331852474 auroc: 0.  
9430503027150604 ap: 0.9295865598519479 time: 60.  
25043821334839  
242  
243 74 loss: tensor(0.6082, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9275868555370703 auroc: 0.  
9422478561630883 ap: 0.9275869374661027  
244 74 loss: tensor(0.6082, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9298045021135213 auroc: 0.  
943227116520578 ap: 0.9298047250673317 time: 60.  
60940885543823  
245  
246 75 loss: tensor(0.6068, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9278919956480014 auroc: 0.  
9425298933248943 ap: 0.9278920765658566  
247 75 loss: tensor(0.6068, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9300220133679561 auroc: 0.  
9434115962499269 ap: 0.9300222384263174 time: 60.  
33318781852722  
248  
249 76 loss: tensor(0.6063, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.928015431038015 auroc: 0.  
9425947778223257 ap: 0.9280154726535597  
250 76 loss: tensor(0.6063, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9302098981224353 auroc: 0.  
9435671967049378 ap: 0.9302101298501091 time: 60.  
47185254096985  
251  
252 77 loss: tensor(0.6053, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9281676516569779 auroc: 0.  
9427752280378904 ap: 0.9281676676262977  
253 77 loss: tensor(0.6053, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9303913614294691 auroc: 0.  
9437233690648814 ap: 0.930391598696182 time: 58.  
85548710823059  
254  
255 78 loss: tensor(0.6043, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9285082779590738 auroc: 0.  
9429549972107575 ap: 0.928508300415924  
256 78 loss: tensor(0.6043, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9305435781457606 auroc: 0.  
9438542440909046 ap: 0.9305438112012987 time: 59.  
37829804420471  
257  
258 79 loss: tensor(0.6038, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9285320171574093 auroc: 0.  
9430291971242044 ap: 0.9285320283448798  
259 79 loss: tensor(0.6038, device='cuda:0', grad_fn=<
```

```
259 AddBackward0>) auprc: 0.9306787511561571 auroc: 0.  
9439758206142774 ap: 0.9306789698003468 time: 61.  
22029447555542  
260  
261 80 loss: tensor(0.6031, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9286851802998621 auroc: 0.  
9431507818941879 ap: 0.9286851887744875  
262 80 loss: tensor(0.6031, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9307933492380681 auroc: 0.  
9440826562351432 ap: 0.9307935603494689 time: 59.  
390188694000244  
263  
264 81 loss: tensor(0.6025, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9287927421162295 auroc: 0.  
9432424765979408 ap: 0.9287927910408568  
265 81 loss: tensor(0.6025, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9308898280726956 auroc: 0.  
9441756924536745 ap: 0.9308900376326239 time: 61.  
19106435775757  
266  
267 82 loss: tensor(0.6019, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9288933010937664 auroc: 0.  
9433543999652536 ap: 0.9288933687656659  
268 82 loss: tensor(0.6019, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9309803261091261 auroc: 0.  
9442697057717074 ap: 0.9309805338476606 time: 60.  
939069747924805  
269  
270 83 loss: tensor(0.6012, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9290235994959104 auroc: 0.  
9434682633242809 ap: 0.9290236123650513  
271 83 loss: tensor(0.6012, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9310523188285735 auroc: 0.  
9443426092676871 ap: 0.9310525188361757 time: 60.  
63446044921875  
272  
273 84 loss: tensor(0.6014, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9289492811740955 auroc: 0.  
9434421417373877 ap: 0.928949299283138  
274 84 loss: tensor(0.6014, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9311284997435414 auroc: 0.  
9444275628324694 ap: 0.931128698008968 time: 60.  
239422082901  
275  
276 85 loss: tensor(0.6012, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.928839453312702 auroc: 0.  
9434723449055279 ap: 0.9288394641498977  
277 85 loss: tensor(0.6012, device='cuda:0', grad_fn=<  
AddBackward0>) auprc: 0.9311857267809005 auroc: 0.  
9444849510094356 ap: 0.9311859215652005 time: 60.  
70742130279541
```

```
278
279 86  loss: tensor(0.6005, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.929132206444519    auroc: 0.
    943602324160961    ap: 0.9291322215919452
280 86  loss: tensor(0.6005, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9312524682464007    auroc: 0.
    944560831780463    ap: 0.9312526590127369    time: 60.
    55218434333801
281
282 87  loss: tensor(0.5996, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9293353616382719    auroc: 0.
    9437559040118273    ap: 0.9293353683463964
283 87  loss: tensor(0.5996, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9312989262318166    auroc: 0.
    944601872886813    ap: 0.9312991134189922    time: 59.
    96972393989563
284
285 88  loss: tensor(0.6001, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9291558527786006    auroc: 0.
    9436514806248331    ap: 0.9291558618620079
286 88  loss: tensor(0.6001, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9313621452191287    auroc: 0.
    9446786045362723    ap: 0.931362329377439    time: 59.
    793214082717896
287
288 89  loss: tensor(0.5999, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9291758313119508    auroc: 0.
    9436711433573105    ap: 0.9291759032913885
289 89  loss: tensor(0.5999, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9313959436871243    auroc: 0.
    944698393708756    ap: 0.9313961055152306    time: 59.
    92616128921509
290
291 90  loss: tensor(0.5997, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9291590230451515    auroc: 0.
    9437542637824502    ap: 0.929159106437425
292 90  loss: tensor(0.5997, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.931457828130898    auroc: 0.
    9447799049052823    ap: 0.9314579957297667    time: 59.
    97329235076904
293
294 91  loss: tensor(0.5996, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9292209967116364    auroc: 0.
    9437548960300783    ap: 0.9292210159367595
295 91  loss: tensor(0.5996, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9314773510369697    auroc: 0.
    9447703209957848    ap: 0.9314775292940236    time: 60.
    39727282524109
296
297 92  loss: tensor(0.5995, device='cuda:0', grad_fn=<
    AddBackward0>)    auprc: 0.9293070278069054    auroc: 0.
```

```
297 9438461160811678    ap: 0.9293070379495476
298 92    loss: tensor(0.5995, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9315440928973574    auroc: 0.
9448694792160044    ap: 0.931544274081461    time: 59.
49692225456238
299
300 93    loss: tensor(0.5986, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.929467077398079    auroc: 0.
9439505181781699    ap: 0.9294670950284651
301 93    loss: tensor(0.5986, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9315591753496637    auroc: 0.
9448488159444739    ap: 0.9315593381385798    time: 59.
886306047439575
302
303 94    loss: tensor(0.5981, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9295559656395956    auroc: 0.
9440200652635473    ap: 0.9295559753036746
304 94    loss: tensor(0.5981, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9316151502972841    auroc: 0.
944931598405326    ap: 0.9316153265988478    time: 59.
26975226402283
305
306 95    loss: tensor(0.5976, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9295755451581704    auroc: 0.
9440757464761199    ap: 0.9295755591236724
307 95    loss: tensor(0.5976, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9316421292470786    auroc: 0.
9449539602800608    ap: 0.9316422911959347    time: 59.
952199935913086
308
309 96    loss: tensor(0.5983, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9294026509059544    auroc: 0.
9439571474618292    ap: 0.9294026707692671
310 96    loss: tensor(0.5983, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9316594668815751    auroc: 0.
9449619671038108    ap: 0.9316596336464978    time: 59.
35605764389038
311
312 97    loss: tensor(0.5979, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.929574135938128    auroc: 0.
9441047334755475    ap: 0.9295741712145076
313 97    loss: tensor(0.5979, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9316961676249607    auroc: 0.
9450327498929036    ap: 0.9316963332962819    time: 59.
31256437301636
314
315 98    loss: tensor(0.5974, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9296742654590828    auroc: 0.
9441383571281405    ap: 0.9296742853968792
316 98    loss: tensor(0.5974, device='cuda:0', grad_fn=<
AddBackward0>)    auprc: 0.9317056463782161    auroc: 0.
```

```
316 9450164133661444      ap: 0.9317058079327425      time: 59.  
        431583404541016  
317  
318 99    loss: tensor(0.5973, device='cuda:0', grad_fn=<  
        AddBackward0>)    auprc: 0.929571202717068    auroc: 0.  
        9441069531026679    ap: 0.9295712238805125  
319 99    loss: tensor(0.5973, device='cuda:0', grad_fn=<  
        AddBackward0>)    auprc: 0.9317388177209646    auroc: 0.  
        9450710189928438    ap: 0.9317389899956793    time: 59.  
        78714871406555  
320  
321
```