

```
1 C:\Users\13558\.conda\envs\DRAMA\python.exe D:/
  Desktop/personal/stage/AAu/DLonPP2project/code/
  ex_MTL_DRAMA/DRAMA.py
2 beautiful (number of comparison): 80
3 boring (number of comparison): 80
4 depressing (number of comparison): 80
5 lively (number of comparison): 80
6 safe (number of comparison): 80
7 wealthy (number of comparison): 80
8 num is: [56, 56, 56, 56, 56, 56]
9 [18:29:36] c:\jenkins\workspace\mxnet-tag\mxnet\src\
  operator\mn\cudnn\./cudnn_algoreg-inl.h:97: Running
  performance tests to find the best convolution
  algorithm, this can take a while... (set the
  environment variable MXNET_CUDNN_AUTOTUNE_DEFAULT to
  0 to disable)
10
11 [[-2.431277    -0.45590252]
12  [-2.431277    -0.45590252]
13  [-2.431277    -0.45590252]
14  [-2.431277    -0.45590252]
15  [-2.431277    -0.45590252]
16  [-2.431277    -0.45590252]
17  [-2.431277    -0.45590252]
18  [-2.431277    -0.45590252]]
19 <NDArray 8x2 @gpu(0)>
20 epoch= 1 iteration= 0 / 7 loss 0 = 1.1339055
21
22 [[2.2972589 2.6291049]
23  [2.2972589 2.6291049]
24  [2.3120117 2.627978 ]
25  [2.3120117 2.627978 ]
26  [2.2972589 2.6291049]
27  [2.2972589 2.6291049]
28  [2.3120117 2.627978 ]
29  [2.3120117 2.627978 ]]
30 <NDArray 8x2 @gpu(0)>
31 epoch= 1 iteration= 0 / 7 loss 1 = 0.7640683
32
33 [[-1.2524018 -8.592038 ]
34  [-1.2477695 -8.592129 ]
```

```
35 [-1.2523726 -8.592056 ]
36 [-1.2477582 -8.592115 ]
37 [-1.2524018 -8.592038 ]
38 [-1.2524018 -8.592038 ]
39 [-1.2477582 -8.592115 ]
40 [-1.2523726 -8.592056 ]]
41 <NDArray 8x2 @gpu(0)>
42 epoch= 1 iteration= 0 / 7 loss 2 = 3.6873827
43
44 [[ 5.273145 -1.7244378]
45 [ 5.273145 -1.7244383]
46 [ 5.273145 -1.7244385]
47 [ 5.273145 -1.7244383]
48 [ 5.268314 -1.7280719]
49 [ 5.268314 -1.7280719]
50 [ 5.2683015 -1.7280595]
51 [ 5.2683144 -1.7280728]]
52 <NDArray 8x2 @gpu(0)>
53 epoch= 1 iteration= 0 / 7 loss 3 = 0.89189047
54
55 [[3.2193878 4.203053 ]
56 [3.221633 4.2024736]
57 [3.2193878 4.203053 ]
58 [3.2193878 4.203053 ]
59 [3.2193882 4.203053 ]
60 [3.2193882 4.203053 ]
61 [3.2193882 4.203053 ]
62 [3.2193882 4.203053 ]]
63 <NDArray 8x2 @gpu(0)>
64 epoch= 1 iteration= 0 / 7 loss 4 = 0.82602096
65
66 [[-0.26840734 4.850431 ]
67 [-0.27479637 4.8470926 ]
68 [-0.2747934 4.847104 ]
69 [-0.26840734 4.850431 ]
70 [-0.26840734 4.850431 ]
71 [-0.27479362 4.847104 ]
72 [-0.27479362 4.847104 ]
73 [-0.26840734 4.850431 ]]
74 <NDArray 8x2 @gpu(0)>
75 epoch= 1 iteration= 0 / 7 loss 5 = 2.5824845
```

```
76 epoch= 1 iteration= 1 / 7 loss 0 = 2.974841
77 epoch= 1 iteration= 1 / 7 loss 1 = 3.181294
78 epoch= 1 iteration= 1 / 7 loss 2 = 11.450563
79 epoch= 1 iteration= 1 / 7 loss 3 = 9.339265
80 epoch= 1 iteration= 1 / 7 loss 4 = 6.182206
81 epoch= 1 iteration= 1 / 7 loss 5 = 7.7128935
82 epoch= 1 iteration= 2 / 7 loss 0 = 17.005663
83 epoch= 1 iteration= 2 / 7 loss 1 = 11.287791
84 epoch= 1 iteration= 2 / 7 loss 2 = 12.35694
85 epoch= 1 iteration= 2 / 7 loss 3 = 1.0961145
86 epoch= 1 iteration= 2 / 7 loss 4 = 11.072353
87 epoch= 1 iteration= 2 / 7 loss 5 = 11.344895
88 epoch= 1 iteration= 3 / 7 loss 0 = 9.813078
89 epoch= 1 iteration= 3 / 7 loss 1 = 6.8582635
90 epoch= 1 iteration= 3 / 7 loss 2 = 0.6541245
91 epoch= 1 iteration= 3 / 7 loss 3 = 4.7616725
92 epoch= 1 iteration= 3 / 7 loss 4 = 2.8098905
93 epoch= 1 iteration= 3 / 7 loss 5 = 5.138684
94 epoch= 1 iteration= 4 / 7 loss 0 = 3.278288
95 epoch= 1 iteration= 4 / 7 loss 1 = 0.89838225
96 epoch= 1 iteration= 4 / 7 loss 2 = 5.8054113
97 epoch= 1 iteration= 4 / 7 loss 3 = 8.009057
98 epoch= 1 iteration= 4 / 7 loss 4 = 1.3410888
99 epoch= 1 iteration= 4 / 7 loss 5 = 0.84633666
100 epoch= 1 iteration= 5 / 7 loss 0 = 0.8627025
101 epoch= 1 iteration= 5 / 7 loss 1 = 8.86934
102 epoch= 1 iteration= 5 / 7 loss 2 = 11.876947
103 epoch= 1 iteration= 5 / 7 loss 3 = 3.756203
104 epoch= 1 iteration= 5 / 7 loss 4 = 11.609748
105 epoch= 1 iteration= 5 / 7 loss 5 = 5.296645
106 epoch= 1 iteration= 6 / 7 loss 0 = 3.841611
107 *****test on validation 0 start *****
108 *****test on data_validation 0 finished,
    accuracy = 0.375 *****
109 chage of accuracy on data_validation0:
110 0.375
111 chage of accuracy on train0:
112 0.6428571428571429
113 epoch= 1 iteration= 6 / 7 loss 1 = 22.439034
114 *****test on validation 1 start *****
115 [{'label': 0, 'dir': ['D:\\Desktop\\personal\\stage
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Desktop\\personal\\stage\\AAu\\DLonPP2project\\ds\\
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080726_51414fe6fdc9f04926007be9_MexicoCity.JPG']}]
116 *****test on data_validation 1 finished,
    accuracy = 0.5 *****
117 chage of accuracy on data_validation1:
118 0.5
119 chage of accuracy on train1:
120 0.5714285714285714
121 epoch= 1 iteration= 6 / 7 loss 2 = 31.875797
122 *****test on validation 2 start *****
123 *****test on data_validation 2 finished,
    accuracy = 0.5 *****
124 chage of accuracy on data_validation2:
125 0.5
126 chage of accuracy on train2:
127 0.48214285714285715
128 epoch= 1 iteration= 6 / 7 loss 3 = 0.8229635
129 *****test on validation 3 start *****
130 *****test on data_validation 3 finished,
    accuracy = 0.5 *****
131 chage of accuracy on data_validation3:
132 0.5
133 chage of accuracy on train3:
134 0.5892857142857143
135 epoch= 1 iteration= 6 / 7 loss 4 = 30.571291
136 *****test on validation 4 start *****
137 *****test on data_validation 4 finished,
    accuracy = 0.75 *****
138 chage of accuracy on data_validation4:
139 0.75
```

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140 chage of accuracy on train4:
141 0.5892857142857143
142 epoch= 1 iteration= 6 / 7 loss 5 = 15.614731
143 *****test on validation 5 start *****
144 *****test on data_validation 5 finished,
    accuracy = 0.25 *****
145 chage of accuracy on data_validation5:
146 0.25
147 chage of accuracy on train5:
148 0.5535714285714286
149 chage of loss0 every epoch:
150
151 [5.5585837]
152 <NDArray 1 @gpu(0)>
153 chage of loss1 every epoch:
154
155 [7.7568817]
156 <NDArray 1 @gpu(0)>
157 chage of loss2 every epoch:
158
159 [11.101024]
160 <NDArray 1 @gpu(0)>
161 chage of loss3 every epoch:
162
163 [4.096738]
164 <NDArray 1 @gpu(0)>
165 chage of loss4 every epoch:
166
167 [9.201799]
168 <NDArray 1 @gpu(0)>
169 chage of loss5 every epoch:
170
171 [6.93381]
172 <NDArray 1 @gpu(0)>
173
174 [[-14.27725      8.529978]
175  [-14.281935      8.526011]
176  [-14.281933      8.526007]
177  [-14.27725      8.529978]
178  [-14.27725      8.529978]
179  [-14.27725      8.529978]
```

```
180 [-14.281935  8.526011]
181 [-14.27725   8.529978]]
182 <NDArray 8x2 @gpu(0)>
183 epoch= 2 iteration= 0 / 7 loss 0 = 14.271021
184
185 [[-5.065672  9.987444]
186 [-5.087901  9.989559]
187 [-5.065672  9.987444]
188 [-5.087886  9.989557]
189 [-5.087886  9.989557]
190 [-5.065672  9.987444]
191 [-5.087901  9.989559]
192 [-5.087886  9.989557]]
193 <NDArray 8x2 @gpu(0)>
194 epoch= 2 iteration= 0 / 7 loss 1 = 9.433701
195
196 [[ 4.1095967 -13.921337 ]
197 [ 4.1140566 -13.920757 ]
198 [ 4.1140566 -13.920757 ]
199 [ 4.1095767 -13.921291 ]
200 [ 4.1095767 -13.921291 ]
201 [ 4.1095967 -13.921337 ]
202 [ 4.1095767 -13.921291 ]
203 [ 4.1140566 -13.920757 ]]
204 <NDArray 8x2 @gpu(0)>
205 epoch= 2 iteration= 0 / 7 loss 2 = 11.286604
206
207 [[1.9904552 1.5514042]
208 [1.985475  1.5480832]
209 [1.9904552 1.5514042]
210 [1.9854864 1.5480707]
211 [1.9854864 1.5480707]
212 [1.9904552 1.5514042]
213 [1.9854864 1.5480707]
214 [1.985475  1.5480832]]
215 <NDArray 8x2 @gpu(0)>
216 epoch= 2 iteration= 0 / 7 loss 3 = 0.67844194
217
218 [[-3.5681646 10.962349 ]
219 [-3.568164  10.962343 ]
220 [-3.5660045 10.961658 ]
```



```
221 [-3.5660062 10.961662 ]
222 [-3.5660062 10.961662 ]
223 [-3.5681646 10.962349 ]
224 [-3.5681643 10.962343 ]
225 [-3.568164 10.962343 ]]
226 <NDArray 8x2 @gpu(0)>
227 epoch= 2 iteration= 0 / 7 loss 4 = 7.280958
228
229 [[-6.5919895 11.170511 ]
230 [-6.5919905 11.17051 ]
231 [-6.5920014 11.1705475]
232 [-6.5920014 11.170548 ]
233 [-6.5981874 11.166804 ]
234 [-6.5981874 11.166804 ]
235 [-6.5981874 11.166804 ]
236 [-6.5981874 11.166804 ]]
237 <NDArray 8x2 @gpu(0)>
238 epoch= 2 iteration= 0 / 7 loss 5 = 6.677605
239 epoch= 2 iteration= 1 / 7 loss 0 = 1.0540422
240 epoch= 2 iteration= 1 / 7 loss 1 = 0.9622352
241 epoch= 2 iteration= 1 / 7 loss 2 = 0.9835992
242 epoch= 2 iteration= 1 / 7 loss 3 = 0.43193692
243 epoch= 2 iteration= 1 / 7 loss 4 = 1.2442416
244 epoch= 2 iteration= 1 / 7 loss 5 = 2.899385
245 epoch= 2 iteration= 2 / 7 loss 0 = 3.533683
246 epoch= 2 iteration= 2 / 7 loss 1 = 3.107977
247 epoch= 2 iteration= 2 / 7 loss 2 = 0.9350829
248 epoch= 2 iteration= 2 / 7 loss 3 = 0.8200291
249 epoch= 2 iteration= 2 / 7 loss 4 = 7.112392
250 epoch= 2 iteration= 2 / 7 loss 5 = 2.8531837
251 epoch= 2 iteration= 3 / 7 loss 0 = 10.130816
252 epoch= 2 iteration= 3 / 7 loss 1 = 1.9469799
253 epoch= 2 iteration= 3 / 7 loss 2 = 8.081355
254 epoch= 2 iteration= 3 / 7 loss 3 = 1.9691001
255 epoch= 2 iteration= 3 / 7 loss 4 = 9.186166
256 epoch= 2 iteration= 3 / 7 loss 5 = 3.1218307
257 epoch= 2 iteration= 4 / 7 loss 0 = 4.3771114
258 epoch= 2 iteration= 4 / 7 loss 1 = 10.43137
259 epoch= 2 iteration= 4 / 7 loss 2 = 5.0358186
260 epoch= 2 iteration= 4 / 7 loss 3 = 1.5527673
261 epoch= 2 iteration= 4 / 7 loss 4 = 13.145522
```

```
262 epoch= 2 iteration= 4 / 7 loss 5 = 7.9065704
263 epoch= 2 iteration= 5 / 7 loss 0 = 12.627284
264 epoch= 2 iteration= 5 / 7 loss 1 = 5.406997
265 epoch= 2 iteration= 5 / 7 loss 2 = 6.0204477
266 epoch= 2 iteration= 5 / 7 loss 3 = 4.96256
267 epoch= 2 iteration= 5 / 7 loss 4 = 2.4318385
268 epoch= 2 iteration= 5 / 7 loss 5 = 9.236196
269 epoch= 2 iteration= 6 / 7 loss 0 = 1.4494935
270 *****test on validation 0 start *****
271 *****test on data_validation 0 finished,
    accuracy = 0.625 *****
272 chage of accuracy on data_validation0:
273 0.375
274 0.625
275 chage of accuracy on train0:
276 0.6428571428571429
277 0.5357142857142857
278 epoch= 2 iteration= 6 / 7 loss 1 = 15.179823
279 *****test on validation 1 start *****
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    ': 0, 'dir': ['D:\\Desktop\\personal\\stage\\AAu\\
    DLonPP2project\\ds\\images\\37.731876_-122.
    495152_50f5e8c9fdc9f065f00074c3_SanFrancisco.JPG', '
    D:\\Desktop\\personal\\stage\\AAu\\DLonPP2project\\
    ds\\images\\-22.865182_-43.
    357414_50f5eb3bfdc9f065f00080af_RioDeJaneiro.JPG
    ']}], {'label': 1, 'dir': ['D:\\Desktop\\personal\\
    stage\\AAu\\DLonPP2project\\ds\\images\\48.780779_2.
    390646_513e618efdc9f0358700b577_Paris.JPG', 'D:\\
    Desktop\\personal\\stage\\AAu\\DLonPP2project\\ds\\
    images\\38.836625_-9.
    083448_51409093fdc9f04926000318_Lisbon.JPG']}, {'
    label': 1, 'dir': ['D:\\Desktop\\personal\\stage\\
    AAu\\DLonPP2project\\ds\\images\\43.738876_-79.
    321090_50f43523fdc9f065f0002b84_Toronto.JPG', 'D:\\
    Desktop\\personal\\stage\\AAu\\DLonPP2project\\ds\\
    images\\19.331612_-99.
    080726_51414fe6fdc9f04926007be9_MexicoCity.JPG']}]
281 *****test on data_validation 1 finished,
    accuracy = 0.5 *****
282 chage of accuracy on data_validation1:
283 0.5
284 0.5
285 chage of accuracy on train1:
286 0.5714285714285714
287 0.6428571428571429

```

```
288 epoch= 2 iteration= 6 / 7 loss 2 = 2.9536252
289 *****test on validation 2  start *****
290 *****test on data_validation 2  finished,
    accuracy =  0.5  *****
291 chage of accuracy on data_validation2:
292 0.5
293 0.5
294 chage of accuracy on train2:
295 0.48214285714285715
296 0.44642857142857145
297 epoch= 2 iteration= 6 / 7 loss 3 = 2.821698
298 *****test on validation 3  start *****
299 *****test on data_validation 3  finished,
    accuracy =  0.75  *****
300 chage of accuracy on data_validation3:
301 0.5
302 0.75
303 chage of accuracy on train3:
304 0.5892857142857143
305 0.5535714285714286
306 epoch= 2 iteration= 6 / 7 loss 4 = 17.01014
307 *****test on validation 4  start *****
308 *****test on data_validation 4  finished,
    accuracy =  0.25  *****
309 chage of accuracy on data_validation4:
310 0.75
311 0.25
312 chage of accuracy on train4:
313 0.5892857142857143
314 0.5178571428571429
315 epoch= 2 iteration= 6 / 7 loss 5 = 21.359417
316 *****test on validation 5  start *****
317 *****test on data_validation 5  finished,
    accuracy =  0.75  *****
318 chage of accuracy on data_validation5:
319 0.25
320 0.75
321 chage of accuracy on train5:
322 0.5535714285714286
323 0.5178571428571429
324 chage of loss0 every epoch:
```

```
325
326 [5.5585837]
327 <NDArray 1 @gpu(0)>
328
329 [6.7776365]
330 <NDArray 1 @gpu(0)>
331 chage of loss1 every epoch:
332
333 [7.7568817]
334 <NDArray 1 @gpu(0)>
335
336 [6.6384406]
337 <NDArray 1 @gpu(0)>
338 chage of loss2 every epoch:
339
340 [11.101024]
341 <NDArray 1 @gpu(0)>
342
343 [5.0423617]
344 <NDArray 1 @gpu(0)>
345 chage of loss3 every epoch:
346
347 [4.096738]
348 <NDArray 1 @gpu(0)>
349
350 [1.8909333]
351 <NDArray 1 @gpu(0)>
352 chage of loss4 every epoch:
353
354 [9.201799]
355 <NDArray 1 @gpu(0)>
356
357 [8.201609]
358 <NDArray 1 @gpu(0)>
359 chage of loss5 every epoch:
360
361 [6.93381]
362 <NDArray 1 @gpu(0)>
363
364 [7.722027]
365 <NDArray 1 @gpu(0)>
```

```
366 *****test on data_test 0  start *****
367 0 / 1
368 accuracy on data_test: 0.25
369 *****test on data_test 1  start *****
370 0 / 1
371 accuracy on data_test: 0.625
372 *****test on data_test 2  start *****
373 0 / 1
374 accuracy on data_test: 0.625
375 *****test on data_test 3  start *****
376 0 / 1
377 accuracy on data_test: 0.375
378 *****test on data_test 4  start *****
379 0 / 1
380 accuracy on data_test: 0.5
381 *****test on data_test 5  start *****
382 0 / 1
383 accuracy on data_test: 0.875
384
385 Process finished with exit code 0
386
```