

File - main

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1 C:\Users\Salvo\AppData\Local\Microsoft\WindowsApps\python3.8.exe "C:/Users/Salvo/GitHub/MicroRacer_Corinaldesi_Fiorilla
- Copy/ppo/main.py"
2 2022-01-31 15:37:37.579569: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudart64_110.dll'; dlsym: cudart64_110.dll not found
3 2022-01-31 15:37:37.579725: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlsym if you do
not have a GPU set up on your machine.
4 2022-01-31 15:37:40.874907: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudart64_110.dll'; dlsym: cudart64_110.dll not found
5 2022-01-31 15:37:40.875173: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cublas64_11.dll'; dlsym: cublas64_11.dll not found
6 2022-01-31 15:37:40.875432: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cublasLt64_11.dll'; dlsym: cublasLt64_11.dll not found
7 2022-01-31 15:37:40.875685: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cufft64_10.dll'; dlsym: cufft64_10.dll not found
8 2022-01-31 15:37:40.875929: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'curand64_10.dll'; dlsym: curand64_10.dll not found
9 2022-01-31 15:37:40.876175: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cusolver64_11.dll'; dlsym: cusolver64_11.dll not found
10 2022-01-31 15:37:40.876422: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cusparse64_11.dll'; dlsym: cusparse64_11.dll not found
11 2022-01-31 15:37:40.876674: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic
library 'cudnn64_8.dll'; dlsym: cudnn64_8.dll not found
12 2022-01-31 15:37:40.876806: W tensorflow/core/common_runtime/gpu/gpu_device.cc:1835] Cannot dlopen some GPU libraries.
Please make sure the missing libraries mentioned above are installed properly if you would like to use GPU. Follow the
guide at https://www.tensorflow.org/install/gpu for how to download and setup the required libraries for your platform.
13 Skipping registering GPU devices...
14 2022-01-31 15:37:40.877251: I tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized
with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical
operations: AVX AVX2
15 To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
16 loading NN from: saved_model
17 CURRENT ACTOR-CRITIC NETWORK IN USE
18 Model: "ActorNet"
19 -----
20 Layer (type)          Output Shape         Param #  Connected to
21 -----
22 input_1 (InputLayer) [(None, 5)]          0
23
24 acc_1 (Dense)        (None, 128)           768      input_1[0][0]
25
26 dir_1 (Dense)        (None, 128)           768      input_1[0][0]
27
28 acc_2 (Dense)        (None, 128)           16512    acc_1[0][0]
29
30 dir_2 (Dense)        (None, 128)           16512    dir_1[0][0]
31
32 acc_3 (Dense)        (None, 128)           16512    acc_2[0][0]
33
34 dir_3 (Dense)        (None, 128)           16512    dir_2[0][0]
35
36 acc_out_mu (Dense)   (None, 1)              129      acc_3[0][0]
37
38 dir_out_mu (Dense)   (None, 1)              129      dir_3[0][0]
39
40 concatenate (Concatenate) (None, 2)          0        acc_out_mu[0][0]
41                                         dir_out_mu[0][0]
42 -----
43 Total params: 67,842
44 Trainable params: 67,842
45 Non-trainable params: 0
46
47 Model: "CriticNet"
48 -----
49 Layer (type)          Output Shape         Param #
50 -----
51 input_2 (InputLayer) [(None, 5)]          0
52
53 layer_1 (Dense)       (None, 128)           768
54
55 layer_2 (Dense)       (None, 128)           16512
56
57 layer_3 (Dense)       (None, 128)           16512
58
59 dense (Dense)         (None, 1)              129
60
61 Total params: 33,921
62 Trainable params: 33,921
63 Non-trainable params: 0
64
65 Started Training ...
66 Hyperparameters:
67 Actor_lr 3e-05. Critic_lr 0.0001. clip_value 0.1. N_epochs 100. steps_per_epoch 4096. train_iteraion 50.
target_mean_diff 0.0225.
68 2022-01-31 15:37:42.051459: I tensorflow/compiler/mlir/mlir_graph_optimization_pass.cc:185] None of the MLIR
Optimization Passes are enabled (registered 2)
69 2022-01-31 15:37:42.107945: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization for
Merge node with control input: direction_norm/assert_positive/assert_less/Assert/AssertGuard/branch_executed/_47
70 completed
71 completed
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80 2022-01-31 15:37:57.272789: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization for
    Merge node with control input: StatefulPartitionedCall/direction_norm/assert_greater/Assert/AssertGuard/
    branch_executed/_497
81 2022-01-31 15:38:01.080008: W tensorflow/python/util/util.cc:348] Sets are not currently considered sequences, but this
    may change in the future, so consider avoiding using them.
82 Epoch: 1. UP Best ! Mean Return: 3.3149173259735107. Trajectories: 18. Mean Length: 227.55555555555554.
83 completed
84 completed
85 completed
86 completed
87 completed
88 completed
89 completed
90 completed
91 completed
92 completed
93 Epoch: 2. DOWN Mean Return: 3.1205222606658936. Trajectories: 19. Mean Length: 215.57894736842104.
94 completed
95 completed
96 completed
97 completed
98 completed
99 completed
100 completed
101 completed
102 completed
103 completed
104 Epoch: 3. UP Best ! Mean Return: 4.228488922119141. Trajectories: 16. Mean Length: 256.0.
105 completed
106 completed
107 completed
108 completed
109 completed
110 completed
111 completed
112 completed
113 completed
114 completed
115 completed
116 completed
117 Epoch: 4. DOWN Mean Return: 3.891789197921753. Trajectories: 19. Mean Length: 215.57894736842104.
118 completed
119 completed
120 completed
121 completed
122 completed
123 completed
124 completed
125 completed
126 Epoch: 5. DOWN Mean Return: 1.4649577140808105. Trajectories: 26. Mean Length: 157.53846153846155.
127 completed
128 completed
129 completed
130 completed
131 completed
132 completed
133 completed
134 completed
135 completed
136 Epoch: 6. UP Mean Return: 2.1070966720581055. Trajectories: 22. Mean Length: 186.18181818182.
137 completed
138 completed
139 completed
140 completed
141 completed
142 completed
143 completed
144 completed
145 completed
146 completed
147 Epoch: 7. DOWN Mean Return: 1.7041962146759033. Trajectories: 26. Mean Length: 157.53846153846155.
148 completed
149 completed
150 completed
151 completed
152 completed
153 completed
154 completed
155 Epoch: 8. UP Mean Return: 2.8470706939697266. Trajectories: 17. Mean Length: 240.94117647058823.
156 completed
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162 completed
163 completed
164 Epoch: 9. DOWN Mean Return: 2.490837574005127. Trajectories: 21. Mean Length: 195.04761904761904.
165 completed
166 completed
167 completed
168 completed
169 completed
170 completed
171 completed
172 completed
173 saving models
174 Epoch: 10. UP Mean Return: 2.780324697494507. Trajectories: 19. Mean Length: 215.57894736842104.
175 completed
176 completed
177 completed
178 completed
179 completed
180 completed
181 completed
182 completed
183 completed
184 completed
185 Epoch: 11. UP Mean Return: 3.3770358562469482. Trajectories: 18. Mean Length: 227.55555555555554.
186 completed
187 completed
188 completed
189 completed
190 completed
191 completed
192 Epoch: 12. DOWN Mean Return: 2.8356542587280273. Trajectories: 18. Mean Length: 227.5555555555554.
193 completed
194 completed
195 completed
196 completed
197 completed
198 completed
199 completed
200 Epoch: 13. DOWN Mean Return: 1.3836302757263184. Trajectories: 24. Mean Length: 170.6666666666666.
201 completed
202 completed
203 completed
204 completed
205 completed
206 completed
207 completed
208 completed
209 completed
210 Epoch: 14. UP Mean Return: 3.542187213897705. Trajectories: 18. Mean Length: 227.5555555555554.
211 completed
212 completed
213 completed
214 completed
215 completed
216 completed
217 completed
218 completed
219 Epoch: 15. DOWN Mean Return: 2.4937212467193604. Trajectories: 18. Mean Length: 227.5555555555554.
220 completed
221 completed
222 completed
223 completed
224 completed
225 completed
226 completed
227 completed
228 completed
229 Epoch: 16. DOWN Mean Return: 1.9663214683532715. Trajectories: 24. Mean Length: 170.6666666666666.
230 completed
231 completed
232 completed
233 completed
234 completed
235 completed
236 completed
237 completed
238 completed
239 Epoch: 17. DOWN Mean Return: 1.5203301906585693. Trajectories: 26. Mean Length: 157.53846153846155.
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247 completed
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250 Epoch: 18. UP      Mean Return: 4.022785186767578. Trajectories: 16. Mean Length: 256.0.
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252 completed
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257 completed
258 completed
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261 Epoch: 19. DOWN    Mean Return: 3.955913782119751. Trajectories: 17. Mean Length: 240.94117647058823.
262 completed
263 completed
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267 completed
268 completed
269 completed
270 completed
271 completed
272 completed
273 saving models
274 Epoch: 20. DOWN    Mean Return: 1.9661706686019897. Trajectories: 26. Mean Length: 157.53846153846155.
275 completed
276 completed
277 completed
278 completed
279 completed
280 completed
281 completed
282 completed
283 completed
284 completed
285 Epoch: 21. UP      Mean Return: 2.178356409072876. Trajectories: 22. Mean Length: 186.1818181818182.
286 completed
287 completed
288 completed
289 completed
290 completed
291 completed
292 completed
293 completed
294 completed
295 completed
296 completed
297 Epoch: 22. UP      Mean Return: 2.417198419570923. Trajectories: 24. Mean Length: 170.66666666666666.
298 completed
299 completed
300 completed
301 completed
302 completed
303 completed
304 completed
305 completed
306 completed
307 completed
308 completed
309 Epoch: 23. UP      Mean Return: 3.335376262664795. Trajectories: 20. Mean Length: 204.8.
310 completed
311 completed
312 completed
313 completed
314 completed
315 completed
316 completed
317 completed
318 completed
319 Epoch: 24. DOWN    Mean Return: 2.7808022499084473. Trajectories: 19. Mean Length: 215.57894736842104.
320 completed
321 completed
322 completed
323 completed
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325 completed
326 completed
327 completed
328 completed
329 Epoch: 25. UP Best ! Mean Return: 4.598608493804932. Trajectories: 14. Mean Length: 292.57142857142856.
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336 completed
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340 Epoch: 26. DOWN      Mean Return: 3.847440481185913. Trajectories: 17. Mean Length: 240.94117647058823.
341 completed
342 completed
343 completed
344 completed
345 completed
346 completed
347 completed
348 completed
349 completed
350 Epoch: 27. DOWN      Mean Return: 2.0651497840881348. Trajectories: 23. Mean Length: 178.08695652173913.
351 completed
352 completed
353 completed
354 completed
355 completed
356 completed
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358 completed
359 completed
360 completed
361 completed
362 Epoch: 28. UP        Mean Return: 3.6329519748687744. Trajectories: 18. Mean Length: 227.5555555555554.
363 completed
364 completed
365 completed
366 completed
367 completed
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369 completed
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371 completed
372 completed
373 Epoch: 29. UP        Mean Return: 4.051611423492432. Trajectories: 16. Mean Length: 256.0.
374 completed
375 completed
376 completed
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378 completed
379 completed
380 completed
381 completed
382 completed
383 completed
384 saving models
385 Epoch: 30. DOWN      Mean Return: 3.4980170726776123. Trajectories: 19. Mean Length: 215.57894736842104.
386 completed
387 completed
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389 completed
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391 completed
392 completed
393 completed
394 Epoch: 31. DOWN      Mean Return: 2.0472142696380615. Trajectories: 24. Mean Length: 170.6666666666666.
395 completed
396 completed
397 completed
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399 completed
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404 completed
405 Epoch: 32. UP        Mean Return: 3.4845075607299805. Trajectories: 19. Mean Length: 215.57894736842104.
406 completed
407 completed
408 completed
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414 completed
415 completed
416 Epoch: 33. DOWN      Mean Return: 2.4735701084136963. Trajectories: 21. Mean Length: 195.04761904761904.
417 completed
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425 completed
426 Epoch: 34. DOWN      Mean Return: 2.3600940704345703. Trajectories: 21.  Mean Length: 195.04761904761904.
427 completed
428 completed
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430 completed
431 completed
432 completed
433 completed
434 completed
435 completed
436 Epoch: 35. DOWN      Mean Return: 1.996536374092102.  Trajectories: 25.  Mean Length: 163.84.
437 completed
438 completed
439 completed
440 completed
441 completed
442 completed
443 completed
444 completed
445 completed
446 completed
447 completed
448 Epoch: 36. UP        Mean Return: 3.6769301891326904. Trajectories: 19.  Mean Length: 215.57894736842104.
449 completed
450 completed
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456 completed
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458 completed
459 Epoch: 37. DOWN      Mean Return: 3.0956385135650635. Trajectories: 20.  Mean Length: 204.8.
460 completed
461 completed
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466 completed
467 completed
468 completed
469 completed
470 Epoch: 38. DOWN      Mean Return: 2.890468120574951.  Trajectories: 22.  Mean Length: 186.1818181818182.
471 completed
472 completed
473 completed
474 completed
475 completed
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478 completed
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481 completed
482 completed
483 Epoch: 39. UP        Mean Return: 4.25506591796875.  Trajectories: 18.  Mean Length: 227.5555555555554.
484 completed
485 completed
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492 completed
493 completed
494 saving models
495 Epoch: 40. DOWN      Mean Return: 2.8384501934051514. Trajectories: 20.  Mean Length: 204.8.
496 completed
497 completed
498 completed
499 completed
500 completed
501 completed
502 completed
503 completed
504 completed
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506 completed
507 Epoch: 41. UP        Mean Return: 4.0055928230285645. Trajectories: 17.  Mean Length: 240.94117647058823.
508 completed
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514 completed
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518 Epoch: 42. DOWN      Mean Return: 1.792549967765808. Trajectories: 26. Mean Length: 157.53846153846155.
519 completed
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522 completed
523 completed
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525 completed
526 completed
527 completed
528 completed
529 completed
530 Epoch: 43. UP        Mean Return: 2.7992238998413086. Trajectories: 23. Mean Length: 178.08695652173913.
531 completed
532 completed
533 completed
534 completed
535 completed
536 completed
537 completed
538 completed
539 completed
540 Epoch: 44. UP        Mean Return: 3.973646640777588. Trajectories: 16. Mean Length: 256.0.
541 completed
542 completed
543 completed
544 completed
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546 completed
547 completed
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550 Epoch: 45. DOWN      Mean Return: 3.6234474182128906. Trajectories: 17. Mean Length: 240.94117647058823.
551 completed
552 completed
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558 completed
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561 Epoch: 46. UP        Mean Return: 4.199724197387695. Trajectories: 17. Mean Length: 240.94117647058823.
562 completed
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573 Epoch: 47. DOWN      Mean Return: 3.1941797733306885. Trajectories: 19. Mean Length: 215.57894736842104.
574 completed
575 completed
576 completed
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578 completed
579 completed
580 completed
581 completed
582 completed
583 Epoch: 48. DOWN      Mean Return: 2.487231731414795. Trajectories: 21. Mean Length: 195.04761904761904.
584 completed
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596 Epoch: 49. UP        Mean Return: 3.352565050125122. Trajectories: 20. Mean Length: 204.8.
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603 completed
604 completed
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606 completed
607 saving models
608 Epoch: 50. UP Best ! Mean Return: 5.207152366638184. Trajectories: 14. Mean Length: 292.57142857142856.
609 completed
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619 Epoch: 51. DOWN Mean Return: 2.8472256660461426. Trajectories: 21. Mean Length: 195.04761904761904.
620 completed
621 completed
622 completed
623 completed
624 completed
625 completed
626 completed
627 completed
628 completed
629 completed
630 completed
631 Epoch: 52. UP Mean Return: 3.7237043380737305. Trajectories: 19. Mean Length: 215.57894736842104.
632 completed
633 completed
634 completed
635 completed
636 completed
637 completed
638 completed
639 completed
640 Epoch: 53. DOWN Mean Return: 2.958423376083374. Trajectories: 18. Mean Length: 227.55555555555554.
641 completed
642 completed
643 completed
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648 completed
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650 completed
651 Epoch: 54. UP Mean Return: 3.810725450515747. Trajectories: 17. Mean Length: 240.94117647058823.
652 completed
653 completed
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662 Epoch: 55. DOWN Mean Return: 3.119201421737671. Trajectories: 19. Mean Length: 215.57894736842104.
663 completed
664 completed
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670 completed
671 Epoch: 56. DOWN Mean Return: 2.741922378540039. Trajectories: 20. Mean Length: 204.8.
672 completed
673 completed
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678 completed
679 completed
680 completed
681 completed
682 Epoch: 57. DOWN Mean Return: 2.2485852241516113. Trajectories: 25. Mean Length: 163.84.
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692 completed
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694 Epoch: 58. UP      Mean Return: 2.76529860496521. Trajectories: 22. Mean Length: 186.1818181818182.
695 completed
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699 completed
700 completed
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702 completed
703 completed
704 Epoch: 59. UP      Mean Return: 2.8664228916168213. Trajectories: 20. Mean Length: 204.8.
705 completed
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708 completed
709 completed
710 completed
711 completed
712 completed
713 completed
714 saving models
715 Epoch: 60. DOWN    Mean Return: 2.636565685272217. Trajectories: 22. Mean Length: 186.18181818182.
716 completed
717 completed
718 completed
719 completed
720 completed
721 completed
722 completed
723 completed
724 completed
725 completed
726 completed
727 Epoch: 61. UP      Mean Return: 4.857602119445801. Trajectories: 15. Mean Length: 273.0666666666666.
728 completed
729 completed
730 completed
731 completed
732 completed
733 completed
734 completed
735 completed
736 completed
737 completed
738 completed
739 completed
740 Epoch: 62. UP Best ! Mean Return: 5.227442741394043. Trajectories: 15. Mean Length: 273.0666666666666.
741 completed
742 completed
743 completed
744 completed
745 completed
746 completed
747 completed
748 completed
749 completed
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751 completed
752 completed
753 Epoch: 63. DOWN    Mean Return: 3.9764583110809326. Trajectories: 20. Mean Length: 204.8.
754 completed
755 completed
756 completed
757 completed
758 completed
759 completed
760 completed
761 completed
762 completed
763 Epoch: 64. DOWN    Mean Return: 3.124966621398926. Trajectories: 18. Mean Length: 227.5555555555554.
764 completed
765 completed
766 completed
767 completed
768 completed
769 completed
770 completed
771 completed
772 completed
773 completed
774 Epoch: 65. UP      Mean Return: 4.872668743133545. Trajectories: 15. Mean Length: 273.0666666666666.
775 completed
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781 completed
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784 Epoch: 66. DOWN      Mean Return: 3.5691120624542236. Trajectories: 18.  Mean Length: 227.55555555555554.
785 completed
786 completed
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790 completed
791 completed
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794 completed
795 Epoch: 67. DOWN      Mean Return: 3.1045267581939697. Trajectories: 20.  Mean Length: 204.8.
796 completed
797 completed
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800 completed
801 completed
802 completed
803 completed
804 completed
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806 Epoch: 68. UP        Mean Return: 3.9204604625701904. Trajectories: 17.  Mean Length: 240.94117647058823.
807 completed
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815 completed
816 completed
817 Epoch: 69. DOWN      Mean Return: 3.28330135345459.   Trajectories: 18.  Mean Length: 227.55555555555554.
818 completed
819 completed
820 completed
821 completed
822 completed
823 completed
824 completed
825 completed
826 completed
827 completed
828 saving models
829 Epoch: 70. UP        Mean Return: 3.4566221237182617. Trajectories: 18.  Mean Length: 227.55555555555554.
830 completed
831 completed
832 completed
833 completed
834 completed
835 completed
836 completed
837 completed
838 completed
839 completed
840 completed
841 Epoch: 71. DOWN      Mean Return: 2.979682207107544.  Trajectories: 22.  Mean Length: 186.18181818182.
842 completed
843 completed
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852 Epoch: 72. UP        Mean Return: 3.0988199710845947. Trajectories: 20.  Mean Length: 204.8.
853 completed
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864 Epoch: 73. UP        Mean Return: 3.6401727199554443. Trajectories: 18.  Mean Length: 227.55555555555554.
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876 Epoch: 74. DOWN Mean Return: 2.625156879425049. Trajectories: 22. Mean Length: 186.1818181818182.
877 completed
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889 Epoch: 75. UP Mean Return: 2.896967887878418. Trajectories: 22. Mean Length: 186.1818181818182.
890 completed
891 completed
892 completed
893 completed
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895 completed
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897 completed
898 completed
899 completed
900 Epoch: 76. DOWN Mean Return: 2.1103758811950684. Trajectories: 24. Mean Length: 170.66666666666666.
901 completed
902 completed
903 completed
904 completed
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908 completed
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910 completed
911 Epoch: 77. DOWN Mean Return: 1.8943086862564087. Trajectories: 28. Mean Length: 146.28571428571428.
912 completed
913 completed
914 completed
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916 completed
917 completed
918 completed
919 completed
920 completed
921 completed
922 completed
923 completed
924 Epoch: 78. UP Mean Return: 4.4993577003479. Trajectories: 17. Mean Length: 240.94117647058823.
925 completed
926 completed
927 completed
928 completed
929 completed
930 completed
931 completed
932 completed
933 completed
934 completed
935 Epoch: 79. DOWN Mean Return: 3.3787760734558105. Trajectories: 18. Mean Length: 227.5555555555554.
936 completed
937 completed
938 completed
939 completed
940 completed
941 completed
942 completed
943 completed
944 completed
945 completed
946 saving models
947 Epoch: 80. UP Mean Return: 3.770299196243286. Trajectories: 18. Mean Length: 227.5555555555554.
948 completed
949 completed
950 completed
951 completed
952 completed
953 completed
954 completed
955 completed
956 completed
957 completed
958 completed

File - main

959 Epoch: 81. UP Mean Return: 4.745303153991699. Trajectories: 15. Mean Length: 273.0666666666666.
960 completed
961 completed
962 completed
963 completed
964 completed
965 completed
966 completed
967 completed
968 completed
969 completed
970 completed
971 Epoch: 82. DOWN Mean Return: 3.192800521850586. Trajectories: 19. Mean Length: 215.57894736842104.
972 completed
973 completed
974 completed
975 completed
976 completed
977 completed
978 completed
979 completed
980 completed
981 completed
982 completed
983 completed
984 completed
985 Epoch: 83. UP Mean Return: 3.679525375366211. Trajectories: 21. Mean Length: 195.04761904761904.
986 completed
987 completed
988 completed
989 completed
990 completed
991 completed
992 completed
993 completed
994 completed
995 completed
996 completed
997 completed
998 Epoch: 84. DOWN Mean Return: 2.7267329692840576. Trajectories: 22. Mean Length: 186.1818181818182.
999 completed
1000 completed
1001 completed
1002 completed
1003 completed
1004 completed
1005 completed
1006 completed
1007 completed
1008 completed
1009 Epoch: 85. DOWN Mean Return: 2.3172404766082764. Trajectories: 22. Mean Length: 186.18181818182.
1010 completed
1011 completed
1012 completed
1013 completed
1014 completed
1015 completed
1016 completed
1017 completed
1018 completed
1019 completed
1020 completed
1021 Epoch: 86. UP Mean Return: 3.973109006881714. Trajectories: 17. Mean Length: 240.94117647058823.
1022 completed
1023 completed
1024 completed
1025 completed
1026 completed
1027 completed
1028 completed
1029 completed
1030 completed
1031 Epoch: 87. DOWN Mean Return: 2.1701841354370117. Trajectories: 23. Mean Length: 178.08695652173913.
1032 completed
1033 completed
1034 completed
1035 completed
1036 completed
1037 completed
1038 completed
1039 completed
1040 completed
1041 Epoch: 88. UP Mean Return: 3.823064088821411. Trajectories: 17. Mean Length: 240.94117647058823.
1042 completed
1043 completed
1044 completed
1045 completed
1046 completed
1047 completed

File - main

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1048 completed  
1049 completed  
1050 completed  
1051 completed  
1052 Epoch: 89. DOWN      Mean Return: 2.2969422340393066. Trajectories: 23.  Mean Length: 178.08695652173913.  
1053 completed  
1054 completed  
1055 completed  
1056 completed  
1057 completed  
1058 completed  
1059 completed  
1060 completed  
1061 completed  
1062 saving models  
1063 Epoch: 90. UP        Mean Return: 2.8280794620513916. Trajectories: 20.  Mean Length: 204.8.  
1064 completed  
1065 completed  
1066 completed  
1067 completed  
1068 completed  
1069 completed  
1070 completed  
1071 completed  
1072 completed  
1073 Epoch: 91. DOWN      Mean Return: 1.920050859451294.  Trajectories: 26.  Mean Length: 157.53846153846155.  
1074 completed  
1075 completed  
1076 completed  
1077 completed  
1078 completed  
1079 completed  
1080 completed  
1081 completed  
1082 completed  
1083 completed  
1084 completed  
1085 completed  
1086 Epoch: 92. UP        Mean Return: 4.269006729125977.  Trajectories: 17.  Mean Length: 240.94117647058823.  
1087 completed  
1088 completed  
1089 completed  
1090 completed  
1091 completed  
1092 completed  
1093 completed  
1094 completed  
1095 completed  
1096 completed  
1097 completed  
1098 Epoch: 93. UP        Mean Return: 5.007016181945801.  Trajectories: 15.  Mean Length: 273.0666666666666.  
1099 completed  
1100 completed  
1101 completed  
1102 completed  
1103 completed  
1104 completed  
1105 completed  
1106 completed  
1107 completed  
1108 completed  
1109 Epoch: 94. DOWN      Mean Return: 3.7321650981903076.  Trajectories: 18.  Mean Length: 227.55555555555554.  
1110 completed  
1111 completed  
1112 completed  
1113 completed  
1114 completed  
1115 completed  
1116 completed  
1117 completed  
1118 completed  
1119 Epoch: 95. DOWN      Mean Return: 2.2902822494506836.  Trajectories: 22.  Mean Length: 186.1818181818182.  
1120 completed  
1121 completed  
1122 completed  
1123 completed  
1124 completed  
1125 completed  
1126 completed  
1127 completed  
1128 completed  
1129 completed  
1130 completed  
1131 Epoch: 96. UP        Mean Return: 4.331301689147949.  Trajectories: 16.  Mean Length: 256.0.  
1132 completed  
1133 completed  
1134 completed  
1135 completed  
1136 completed
```

File - main

```
1137 completed
1138 completed
1139 completed
1140 completed
1141 completed
1142 Epoch: 97. DOWN      Mean Return: 3.464296817779541. Trajectories: 20. Mean Length: 204.8.
1143 completed
1144 completed
1145 completed
1146 completed
1147 completed
1148 completed
1149 completed
1150 completed
1151 completed
1152 completed
1153 completed
1154 Epoch: 98. UP       Mean Return: 4.694504261016846. Trajectories: 16. Mean Length: 256.0.
1155 completed
1156 completed
1157 completed
1158 completed
1159 completed
1160 completed
1161 completed
1162 completed
1163 completed
1164 completed
1165 Epoch: 99. DOWN      Mean Return: 2.6191694736480713. Trajectories: 22. Mean Length: 186.1818181818182.
1166 completed
1167 completed
1168 completed
1169 completed
1170 completed
1171 completed
1172 completed
1173 completed
1174 completed
1175 completed
1176 saving models
1177 Epoch: 100. DOWN     Mean Return: 1.9664673805236816. Trajectories: 25. Mean Length: 163.84.
1178 Training completed_
1179 Mean Reward [<tf.Tensor: shape=(), dtype=float32, numpy=3.3149173>, <tf.Tensor: shape=(), dtype=float32, numpy=3.8917892
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1179 float32, numpy=1.9664674>]
1180 Mean Length [227.55555555555554, 215.57894736842104, 256.0, 215.57894736842104, 157.53846153846155, 186.1818181818182
, 157.53846153846155, 240.94117647058823, 195.04761904761904, 215.57894736842104, 227.55555555555554, 227.
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256.0, 240.94117647058823, 157.53846153846155, 186.18181818182, 170.66666666666666, 204.8, 215.57894736842104, 292.
57142857142856, 240.94117647058823, 178.08695652173913, 227.55555555555554, 256.0, 215.57894736842104, 170.
66666666666666, 215.57894736842104, 195.04761904761904, 195.04761904761904, 163.84, 215.57894736842104, 204.8, 186.
18181818182, 227.55555555555554, 204.8, 240.94117647058823, 157.53846153846155, 178.08695652173913, 256.0, 240.
94117647058823, 240.94117647058823, 215.57894736842104, 195.04761904761904, 204.8, 292.57142857142856, 195.
04761904761904, 215.57894736842104, 227.55555555555554, 240.94117647058823, 215.57894736842104, 204.8, 163.84, 186.
18181818182, 204.8, 186.18181818182, 273.06666666666666, 273.06666666666666, 204.8, 227.5555555555554, 273.
06666666666666, 227.5555555555554, 204.8, 240.94117647058823, 227.5555555555554, 227.5555555555554, 186.
18181818182, 204.8, 227.5555555555554, 186.18181818182, 186.18181818182, 170.66666666666666, 146.28571428571428
, 240.94117647058823, 227.5555555555554, 227.5555555555554, 273.06666666666666, 215.57894736842104, 195.
04761904761904, 186.18181818182, 186.18181818182, 240.94117647058823, 178.08695652173913, 240.94117647058823, 178.
08695652173913, 204.8, 157.53846153846155, 240.94117647058823, 273.06666666666666, 227.5555555555554, 186.
18181818182, 256.0, 204.8, 256.0, 186.18181818182, 163.84]
1181 loading NN from: saved_model
1182 CURRENT ACTOR-CRITIC NETWORK IN USE
1183 Model: "ActorNet"
1184 -----
1185 Layer (type)          Output Shape       Param #  Connected to
1186 =====
1187 input_1 (InputLayer) [(None, 5)]        0
1188 -----
1189 acc_1 (Dense)         (None, 128)       768      input_1[0][0]
1190 -----
1191 dir_1 (Dense)         (None, 128)       768      input_1[0][0]
1192 -----
1193 acc_2 (Dense)         (None, 128)       16512    acc_1[0][0]
1194 -----
1195 dir_2 (Dense)         (None, 128)       16512    dir_1[0][0]
1196 -----
1197 acc_3 (Dense)         (None, 128)       16512    acc_2[0][0]
1198 -----
1199 dir_3 (Dense)         (None, 128)       16512    dir_2[0][0]
1200 -----
1201 acc_out_mu (Dense)   (None, 1)          129      acc_3[0][0]
1202 -----
1203 dir_out_mu (Dense)   (None, 1)          129      dir_3[0][0]
1204 -----
1205 concatenate (Concatenate) (None, 2)       0      acc_out_mu[0][0]
1206                               dir_out_mu[0][0]
1207 -----
1208 Total params: 67,842
1209 Trainable params: 67,842
1210 Non-trainable params: 0
1211 -----
1212 Model: "CriticNet"
1213 -----
1214 Layer (type)          Output Shape       Param #
1215 =====
1216 input_2 (InputLayer) [(None, 5)]        0
1217 -----
1218 layer_1 (Dense)        (None, 128)       768
1219 -----
1220 layer_2 (Dense)        (None, 128)       16512
1221 -----
1222 layer_3 (Dense)        (None, 128)       16512
1223 -----
1224 dense (Dense)         (None, 1)          129
1225 -----
1226 Total params: 33,921
1227 Trainable params: 33,921
1228 Non-trainable params: 0
1229 -----
1230 2022-01-31 16:07:01.757589: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization
for Merge node with control input: accleration_norm/assert_greater/Assert/AssertGuard/branch_executed/_28
1231 completed
1232 completed
1233 completed
1234 completed
1235 completed
1236 completed
1237 completed
1238 completed
1239 completed
1240 completed
1241 completed
1242 completed
1243 completed
1244 completed
1245 completed
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1249 completed
1250 completed
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File - main

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1252 completed
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1279 completed
1280 completed
1281 completed
1282 completed
1283 completed
1284 completed
1285 completed
1286 completed
1287 completed
1288 completed
1289 completed
1290 completed
1291 completed
1292 completed
1293 completed
1294 completed
1295 test saved_model : mean steps : 228. mean rewards : 3.8460845947265625
1296 loading NN from: saved_best_model
1297 CURRENT ACTOR-CRITIC NETWORK IN USE
1298 Model: "ActorNet"
1299 -----
1300 Layer (type)          Output Shape         Param #
1301 =====
1302 input_1 (InputLayer)  [(None, 5)]        0
1303 -----
1304 acc_1 (Dense)         (None, 128)        768     input_1[0][0]
1305 -----
1306 dir_1 (Dense)         (None, 128)        768     input_1[0][0]
1307 -----
1308 acc_2 (Dense)         (None, 128)        16512   acc_1[0][0]
1309 -----
1310 dir_2 (Dense)         (None, 128)        16512   dir_1[0][0]
1311 -----
1312 acc_3 (Dense)         (None, 128)        16512   acc_2[0][0]
1313 -----
1314 dir_3 (Dense)         (None, 128)        16512   dir_2[0][0]
1315 -----
1316 acc_out_mu (Dense)   (None, 1)           129     acc_3[0][0]
1317 -----
1318 dir_out_mu (Dense)   (None, 1)           129     dir_3[0][0]
1319 -----
1320 concatenate (Concatenate) (None, 2)        0       acc_out_mu[0][0]
1321                               dir_out_mu[0][0]
1322 =====
1323 Total params: 67,842
1324 Trainable params: 67,842
1325 Non-trainable params: 0
1326 -----
1327 Model: "CriticNet"
1328 -----
1329 Layer (type)          Output Shape         Param #
1330 =====
1331 input_2 (InputLayer)  [(None, 5)]        0
1332 -----
1333 layer_1 (Dense)       (None, 128)        768
1334 -----
1335 layer_2 (Dense)       (None, 128)        16512
1336 -----
1337 layer_3 (Dense)       (None, 128)        16512
1338 -----
1339 dense (Dense)         (None, 1)           129
1340 =====
```

File - main

```
1341 Total params: 33,921
1342 Trainable params: 33,921
1343 Non-trainable params: 0
1344 -----
1345 2022-01-31 16:07:58.527705: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization
1346   for Merge node with control input: direction_norm/assert_greater/Assert/AssertGuard/branch_executed/_57
1346 completed
1347 completed
1348 completed
1349 completed
1350 completed
1351 completed
1352 completed
1353 completed
1354 completed
1355 completed
1356 completed
1357 completed
1358 completed
1359 completed
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1371 completed
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1375 completed
1376 completed
1377 completed
1378 completed
1379 completed
1380 completed
1381 completed
1382 completed
1383 completed
1384 completed
1385 completed
1386 completed
1387 completed
1388 completed
1389 completed
1390 completed
1391 completed
1392 completed
1393 completed
1394 completed
1395 completed
1396 test saved_best_model : mean steps : 203. mean rewards : 2.7463836669921875
1397
1398 Process finished with exit code 0
1399
```