## File - main

- 1 C:\Users\Salvo\AppData\Local\Microsoft\WindowsApps\python3.8.exe "C:/Users/Salvo/GitHub/MicroRacer\_Corinaldesi\_Fiorilla Copy/ppo/main.pv
- 2 2022-01-31 09:38:56.309231: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'cudart64\_110.dll'; dlerror: cudart64\_110.dll not found
- 3 2022-01-31 09:38:56.309380: I tensorflow/stream\_executor/cuda/cudart\_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
- 4 2022-01-31 09:38:59.717358: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'cudart64\_110.dll'; dlerror: cudart64\_110.dll not found 5 2022-01-31 09:38:59.717631: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic
- library 'cublas64\_11.dll'; dlerror: cublas64\_11.dll not found
- 6 2022-01-31 09:38:59.717881: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'cublasLt64\_11.dll'; dlerror: cublasLt64\_11.dll not found 7 2022-01-31 09:38:59.718138: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic
- library 'cufft64\_10.dll'; dlerror: cufft64\_10.dll not found
- 8 2022-01-31 09:38:59.718387: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'curand64\_10.dll'; dlerror: curand64\_10.dll not found
- 9 2022-01-31 09:38:59.718631: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic
- library 'cusolver64\_11.dll'; dlerror: cusolver64\_11.dll not found
  10 2022-01-31 09:38:59.718885: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'cusparse64\_11.dll'; dlerror: cusparse64\_11.dll not found
- 11 2022-01-31 09:38:59.719138: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'cudnn64\_8.dll'; dlerror: cudnn64\_8.dll not found
- 12 2022-01-31 09:38:59.719270: 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 09:38:59.719752: 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-CRITC NETWORK IN USE
- 18 Model: "ActorNet" 19

19					
20	Layer (type)	Output	Shape	Param #	Connected to
22	input_1 (InputLayer)	[(None	, 5)]	0	
24	layer_1 (Dense)	(None,	512)		input_1[0][0]
26	layer_2 (Dense)	(None,	512)	202050	tayer_1[0][0]
28	Layer_3 (Dense)	(None,	512)	262656	layer_2[0][0]
30	layer_4 (Dense)	(None,	512)	262656	layer_3[0][0]
32	acc_out_mu (Dense)	(None,	1)		layer_4[0][0]
34	dir_out_mu (Dense)	(None,	1)	513	
36	concatenate (Concatenate)	(None,		0	acc_out_mu[0][0] dir_out_mu[0][0]
39 40 41	Total params: 792,066 Trainable params: 792,066 Non-trainable params: 0				
	Model: "CriticNet"				_
45	Layer (type) (	otput Sh	ape	Param #	
47	input_2 (InputLayer) [	(None, 5	)]	0	
49	Layer_1 (Dense) (	None, 51	2)	3072	
51	Layer_2 (Dense) (	None, 51	2)	262656	
53	layer_3 (Dense) (	None, 51	2)	262656	
55 56	dense (Dense) (	None, 1)		513	=
57	Total params: 528,897				_

58 Trainable params: 528,897 59 Non-trainable params: 0 60

61 2022-01-31 09:39:00.904154: I tensorflow/compiler/mlir\_graph\_optimization\_pass.cc:185] None of the MLIR Optimization Passes are enabled (registered 2)

62 2022-01-31 09:39:00.962218: W tensorflow/core/grappler/optimizers/loop\_optimizer.cc:907] Skipping loop optimization for Merge node with control input: direction\_norm/assert\_greater/Assert/AssertGuard/branch\_executed/\_57

63 completed 64 completed

65 completed

66 completed 67 completed

68 completed

69 completed

70 test saved model: mean steps: 133. mean rewards: -0.5933706164360046

71 loading NN from: saved\_best\_model

72 CURRENT ACTOR-CRITC NETWORK IN USE

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File - main
    73 Model: "ActorNet"
   75 Layer (type)
                                                                                         Output Shape
                                                                                                                                            Param #
                                                                                                                                                                         Connected to
   77 input_1 (InputLayer)
                                                                                         [(None, 5)]
                                                                                                                                           0
   78
                                                                                                                                                                         input_1[0][0]
   79 layer_1 (Dense)
                                                                                         (None, 512)
                                                                                                                                            3072
   80
   81 layer_2 (Dense)
                                                                                         (None, 512)
                                                                                                                                            262656
                                                                                                                                                                         layer_1[0][0]
   82
   83 layer_3 (Dense)
                                                                                         (None, 512)
                                                                                                                                            262656
                                                                                                                                                                         layer_2[0][0]
   84
   85 layer_4 (Dense)
                                                                                         (None, 512)
                                                                                                                                            262656
                                                                                                                                                                         layer_3[0][0]
   86
   87 acc_out_mu (Dense)
                                                                                                                                            513
                                                                                                                                                                         layer_4[0][0]
                                                                                         (None, 1)
   89 dir_out_mu (Dense)
                                                                                         (None, 1)
                                                                                                                                            513
                                                                                                                                                                         layer_4[0][0]
   90
   91 concatenate (Concatenate)
                                                                                                                                                                         acc_out_mu[0][0]
                                                                                         (None, 2)
                                                                                                                                           Θ
   92
                                                                                                                                                                         dir_out_mu[0][0]
   93
   94
          Total params: 792,066
   95
          Trainable params: 792,066
   96 Non-trainable params: 0
   97
   98 Model: "CriticNet"
 100 Layer (type)
                                                                                 Output Shape
                                                                                                                                                Param #
 101
                                                                                                                                                0
 102 input_2 (InputLayer)
                                                                                 [(None, 5)]
 103
 104 layer_1 (Dense)
                                                                                                                                                 3072
                                                                                  (None, 512)
 105
 106 layer_2 (Dense)
                                                                                  (None, 512)
                                                                                                                                                 262656
 107
 108 layer_3 (Dense)
                                                                                  (None, 512)
                                                                                                                                                262656
 109
 110 dense (Dense)
                                                                                  (None, 1)
                                                                                                                                                 513
 111 ========
 112 Total params: 528,897
 113 Trainable params: 528,897
 114 Non-trainable params: 0
 115
 116 2022-01-31 09:39:45.401216: W tensorflow/core/grappler/optimizers/loop_optimizer.cc:907] Skipping loop optimization for
             {\tt Merge\ node\ with\ control\ input:\ direction\_norm/assert\_greater/Assert(Assert(Buard))} for all the control input:\ direction\_norm/assert\_greater/Assert(Assert(Buard)) for all the control input:\ direction\_norm/assert\_greater/Assert(Buard)) for all the control input:\ direction\_norm/assert(Buard)) for all the control input:\ direction\_norm/assert(Bua
 117 completed
 118 completed
 119 completed
 120 completed
 121 completed
 122 completed
 123 completed
 124 completed
 125 completed
 126 test saved_best_model : mean steps : 133. mean rewards : -0.6595292687416077
 127
 128 Process finished with exit code \boldsymbol{\Theta}
 129
```