

Model Architecture																																																																																																																												
Total params: 2,712,481																																																																																																																												
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Control Parameters																																																																																																																												
<table border="1"> <thead> <tr> <th colspan="2">P3-01-01-002.py</th> <th colspan="2">P3-01-01-002-FT.py</th> <th colspan="2">P3-01-01-002-FT.py</th> <th colspan="2">P3-01-01-002-FT.py</th> </tr> <tr> <th>Architecture Strategy</th><th>Baseline</th><th>-----> retrian 3x dense</th><th>-----> retrian 4x dense</th><th>-----> retrian 4x dense</th><th>-----> POP 3x dense</th><th>-----> POP 3x dense</th></tr> </thead> <tbody> <tr> <td>Image Type</td><td>YUV</td><td>YUV</td><td>YUV</td><td>YUV</td><td>YUV</td><td>YUV</td></tr> <tr> <td>Epoches</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td></tr> <tr> <td>Correction</td><td>0.1</td><td>0.1</td><td>0.1</td><td>0.1</td><td>0.1</td><td>0.1</td></tr> <tr> <td>batch number</td><td>32</td><td>32</td><td>32</td><td>32</td><td>32</td><td>32</td></tr> <tr> <td>dropout rate</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td><td>0.5</td></tr> <tr> <td>Pooling Method</td><td>max</td><td>max</td><td>max</td><td>max</td><td>max</td><td>max</td></tr> <tr> <td>Feed Data</td><td>0 SimulationData/Recover_From_Side/ 1 SimulationData/Counter_Clock_Wise_Center/ 2 SimulationData/Clock_Wise_Center2/ 3 SimulationData/Clock_Wise_Center/</td><td>-----> 0 SimulationData/Smooth_Corner/</td><td>-----> 0 SimulationData/Smooth_Corner/</td><td>-----> 0 SimulationData/Smooth_Corner/</td><td>-----> 0 SimulationData/Clock_Wise_Center2/</td><td>-----> 0 SimulationData/Clock_Wise_Center2/</td></tr> <tr> <td colspan="5">Evaluation Parameter, Target 93%</td><td></td><td></td></tr> <tr> <td>Model Trained</td><td>model_01_01_002.h5</td><td>model.h5</td><td>model.h5</td><td>model.h5</td><td>model.h5</td><td>model.h5</td></tr> <tr> <td>loss</td><td>0.0138</td><td>0.0238</td><td>0.0186</td><td>0.0213</td><td></td><td></td></tr> <tr> <td>val_loss</td><td>0.0192</td><td>0.0192</td><td>0.0197</td><td>0.0242</td><td></td><td></td></tr> <tr> <td>delta_val_loss_train</td><td>-</td><td>0</td><td>0.0005</td><td>0.005</td><td></td><td></td></tr> <tr> <td>delta_loss_train_val</td><td>0.0054</td><td>-0.0046</td><td>0.0011</td><td>0.0029</td><td></td><td></td></tr> <tr> <td>time/step</td><td>3s/step</td><td>3s/step</td><td>3s/step</td><td>3s/step</td><td>3s/step</td><td>3s/step</td></tr> <tr> <td>CONCLUSION</td><td>1. PASS THE FINISH LINE 2. turning is not smooth. 3. Slightly overfit</td><td>1. turning still not smooth 2. underfit??? 3. turns toward the curb</td><td>1. go out of track.</td><td></td><td></td><td></td></tr> </tbody></table>					P3-01-01-002.py		P3-01-01-002-FT.py		P3-01-01-002-FT.py		P3-01-01-002-FT.py		Architecture Strategy	Baseline	-----> retrian 3x dense	-----> retrian 4x dense	-----> retrian 4x dense	-----> POP 3x dense	-----> POP 3x dense	Image Type	YUV	YUV	YUV	YUV	YUV	YUV	Epoches	5	5	5	5	5	5	Correction	0.1	0.1	0.1	0.1	0.1	0.1	batch number	32	32	32	32	32	32	dropout rate	0.5	0.5	0.5	0.5	0.5	0.5	Pooling Method	max	max	max	max	max	max	Feed Data	0 SimulationData/Recover_From_Side/ 1 SimulationData/Counter_Clock_Wise_Center/ 2 SimulationData/Clock_Wise_Center2/ 3 SimulationData/Clock_Wise_Center/	-----> 0 SimulationData/Smooth_Corner/	-----> 0 SimulationData/Smooth_Corner/	-----> 0 SimulationData/Smooth_Corner/	-----> 0 SimulationData/Clock_Wise_Center2/	-----> 0 SimulationData/Clock_Wise_Center2/	Evaluation Parameter, Target 93%							Model Trained	model_01_01_002.h5	model.h5	model.h5	model.h5	model.h5	model.h5	loss	0.0138	0.0238	0.0186	0.0213			val_loss	0.0192	0.0192	0.0197	0.0242			delta_val_loss_train	-	0	0.0005	0.005			delta_loss_train_val	0.0054	-0.0046	0.0011	0.0029			time/step	3s/step	3s/step	3s/step	3s/step	3s/step	3s/step	CONCLUSION	1. PASS THE FINISH LINE 2. turning is not smooth. 3. Slightly overfit	1. turning still not smooth 2. underfit??? 3. turns toward the curb	1. go out of track.			
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Epoch 1/5 32/32 [=====] - 104s : 32/32 [=====] - 107s 32/32 [=====] - 101s 32/32 [=====] - 106s 3s/step - loss: 0.0253 - val_loss: 0.0235 Epoch 2/5 32/32 [=====] - 84s 3: 32/32 [=====] - 85s 3: 32/32 [=====] - 81s 3: 32/32 [=====] - 81s 3s/step - loss: 0.0236 - val_loss: 0.0255 Epoch 3/5 32/32 [=====] - 84s 3: 32/32 [=====] - 86s 3: 32/32 [=====] - 80s 3: 32/32 [=====] - 84s 3s/step - loss: 0.0256 - val_loss: 0.0218 Epoch 4/5 32/32 [=====] - 87s 3: 32/32 [=====] - 86s 3: 32/32 [=====] - 81s 3: 32/32 [=====] - 84s 3s/step - loss: 0.0215 - val_loss: 0.0240 Epoch 5/5 32/32 [=====] - 85s 3: 32/32 [=====] - 86s 3: 32/32 [=====] - 82s 3: 32/32 [=====] - 82s 3s/step - loss: 0.0213 - val_loss: 0.0242																																																																																																																												
loss: 0.0189 - val_loss: 0.0207 Epoch 2/5 loss: 0.0172 - val_loss: 0.0156 Epoch 3/5 loss: 0.0149 - val_loss: 0.0161 Epoch 4/5 loss: 0.0147 - val_loss: 0.0163 Epoch 5/5 loss: 0.0138 - val_loss: 0.0192																																																																																																																												

