**The completed TensorFlow SSSDS4 Model Training**

* The converting work of SSSDS4 model (training) from Pytorch framework to TensorFlow framework has been done. The dataset used is “Mujoco/train\_mujoco.npy" provided by the authors.
* Under the 500 "n\_iters" small-scale experiment, the converted TF SSSDS4 model takes around 27 mins to complete 100 iterations. Following the convention of the Pytorch framework, we save the trained model every 100 iterations. The pattern used to save the model is “.h5” and all saved ones are in Google Drive cloud storage (see the followings). After the models are saved, I have also done experiments to load them from different checking points and they are all successful.

文本

描述已自动生成

图形用户界面, 应用程序

描述已自动生成

* Some small parts are kept using the pytorch.tensor as we need the specific attributions under the pytorch framework. But all of them only take a very small proportion of the whole converted TensorFlow framework.
* The “S4Model.py” file in the “imputers” folder has not been changed or converted to TensorFlow framework now. Because it includes much more information used in the “SSSDS4Imputer.py”. For the inputs to S4Layer in the “S4Model.py” file, they have been converted to pytorch.tensor from tf.tensor to let S4Layer runs. Then the output pytorch.tensor results are then converted to tf.tensor and used in the model training under the TensorFlow framework. I will work on this later to convert this file to TensorFlow framework.
* In the next step, I will continue to convert the “testing” part of the model from pytorch framework to TensorFlow framework. After this work is done, the imputed data will be generated. Then the predicted data points from the TensorFlow SSSDS4 model will be provided. When the “S4Model.py” file has been converted to TensorFlow framework, the whole converting work of SSSDS4 model is done.