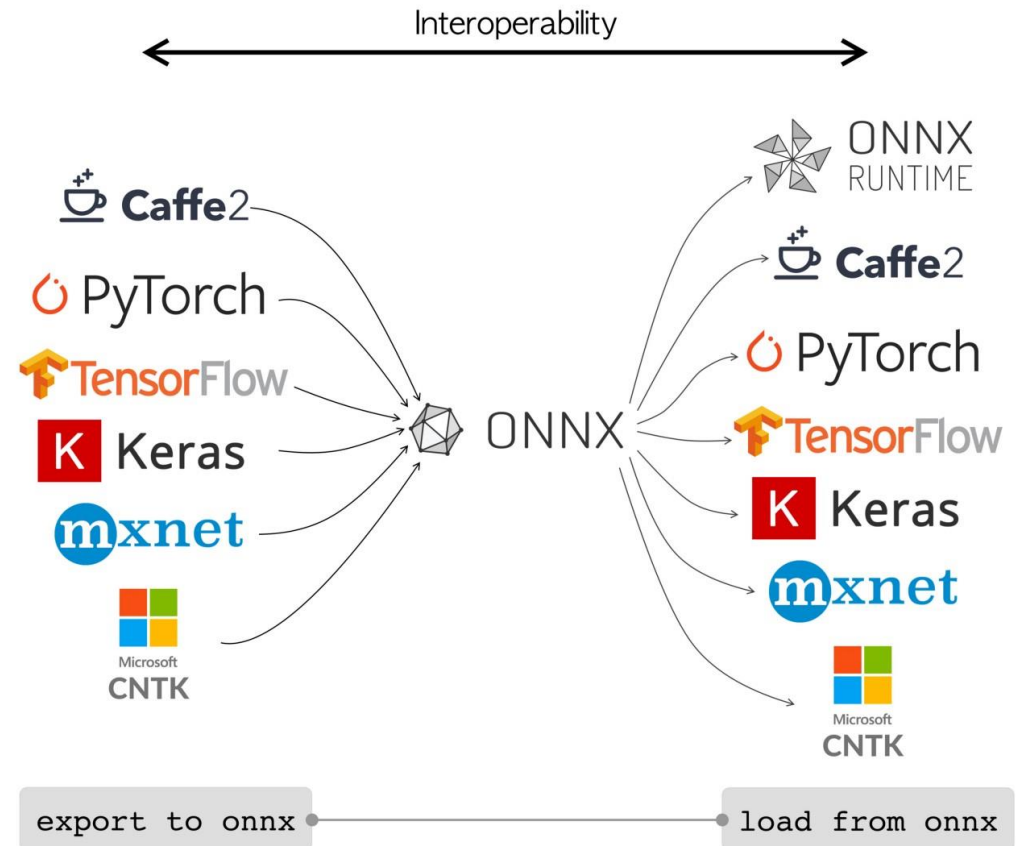# Model

ONNX (Open Neural Network Exchange) is a set of open neural network exchange format, because different frameworks have its advantages, if it is better on a certain framework, you can use that framework to train a neural network, then convert it to onnx or transfer to another framework to execute.The APP provides two models to convert to onnx, from PyTorch models to ONNX models, or from Tensorflow 1.X models to ONNX models.

Version 20230223

Applications

The model converted to onnx can be converted to other model architectures, such as TensorFlow, PyTorch, SciKit-Learn, Keras, Chainer, MXNet, MATLAB, SparkML.

How to use

PyTorch to ONNX :

select PyTorch model -> convert to onnx model

Tensorflow to ONNX :

select Tensorflow model -> convert to onnx model

PyTorch to ONNX

Select the PyTorch model you want to convert, you can enter the file name yourself, or press select to select the model.

You can enter the batch size of the converted onnx model yourself. If you do not fill in, the default value is 1.

You can enter the converted onnx model file name yourself.

Press "convert" to convert the model. The converted model will be placed in the model/onnx folder.

Note:

1. The PyTorch model to be converted must be placed in the model/pytorch folder.

2. The currently supported pytorch model conversion is yolov4's pytorch model conversion to onnx, and yolov4 pytorch must be a darknet architecture.

3. The extension of the selected file only supports .pth files.

PyTorch to ONNX model storage location

The converted onnx model file will be stored in the model/onnx folder.

Tensorflow to ONNX

Select the Tensorflow model to be converted, you can enter the file name yourself, or click "Choose" to select the model.

You can enter the converted onnx model file name yourself.

Note:

- The converted Tensorflow model must be placed in tensorflow in the model folder.

- The currently supported Tensorflow model is downloaded from https://github.com/tensorflow/models/blob/master/research/object_detection/g3doc/tf1_detection_zoo.md , which can only support the model trained by tensorflow1.X.

- The extension of the selected file only supports .pb files.

Tensorflow to ONNX model storage location

The converted onnx model file will be stored in the model/onnx folder.

Reference

- Please refer to the readme.txt in the APP folder.
- LEADERG AppForAI: https://www.leaderg.com/appforai-windows
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