# General

|  |  | **Open-Format** | **Vendor** | **File Extension** | **License** | **ML Tools & Platforms Support** | **Human-readable** | **Compression** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **"almagination"** |  | **−** | **−** | **−** | **−** | **−** | **−** | **✓** |
| **PMML** |  | **✓** | DMG | .pmml | AGPL | R, Python, Spark | **✓** (XML) | **✘** |
| **PFA** |  | **✓** | DMG | JSON |  | PFA-enabled runtime | **✓** (JSON) | **✘** |
| **ONNX** |  | **✓** | SIG LFAI | .onnx |  | TF, CNTK, Core ML, MXNet, ML.NET | **−** | **✓** |
| **TF Serving Format** |  | **✓** | Google | .pf |  | Tensor Flow | **✘** | g-zip |
| **Pickle Format** |  | **✓** |  | .pkl |  | scikit-learn | **✘** | g-zip |
| **JAR/ POJO** |  | **✓** |  | .jar |  | H2O | **✘** | **✓** |
| **HDF** |  | **✓** |  | .h5 |  | Keras | **✘** | **✓** |
| **MLEAP** |  | **✓** |  | .jar/ .zip |  | Spark, TF, scikit-learn | **✘** | g-zip |
| **Torch Script** |  | **✘** |  | .pt |  | PyTorch | **✘** | **✓** |
| **Apple .mlmodel** |  | **✘** | Apple | .mlmodel |  | TensorFlow, scikit-learn, Core ML | **−** | **✓** |

Source - https://ml-ops.org/content/three-levels-of-ml-software

# ONNX

+ Generalized

- нечитабельный

Source - <https://onnx.ai/about.html>

Source - <https://github.com/onnx/>

ONNX <-> PyTorch

<https://pytorch.org/docs/stable/onnx.html>

ONNX <-> TensorFlow

<https://github.com/onnx/onnx-tensorflow>

<https://github.com/onnx/tensorflow-onnx>

ONNX <-> Keras

<https://github.com/onnx/onnxmltools#keras-to-onnx-conversion>

+ Keras <-> TensorFlow

<https://github.com/onnx/keras-onnx/>

ONNX <-> SKLearn

<https://onnx.ai/sklearn-onnx/>

* PMML

TF -> PMML

<https://github.com/jpmml/jpmml-tensorflow>

SCIKIT -> PMML<https://github.com/jpmml/sklearn2pmml>

* PFA

<http://dmg.org/pfa/docs/motivation/#:~:text=PFA%20is%20more%20flexible%20than,t%20break%20the%20data%20pipeline>.