**SciKit-Learn** - A general purpose **library**. A library lives outside Python and is *imported*into Python.

**Keras**- Another **library**for building deep learning models. It’s very high level and easy to use.

**TensorFlow**- A **FRAMEWORK**. A library can’t live on it’s own but a framework can. For example, Keras sits on top of TensorFlow, CNTK and Theano.

Each company has thier own framework.

* Microscoft as CNTK.
* Amazon has MXNet.
* Microsoft and Amazon partnered on Gluon.

Check out this YouTube [video](https://www.youtube.com/watch?v=uQsLXB1Pmqk)on a few of the top LIBRARIES in Python for machine learning.

Tensorflow is symbolic maths library used primarily for neural networks based models.

Scikit-learn is a Python based library that supports different types of traditional machine learning methods and operations.

**Further Reading**

* [What is scikit-learn?](https://www.quora.com/What-is-scikit-learn)
* [What is TensorFlow?](https://www.quora.com/What-is-TensorFlow-1)
* [What is the difference between deep learning and usual machine learning?](https://www.quora.com/What-is-the-difference-between-deep-learning-and-usual-machine-learning)

**TensorFlow** is a library for array data calculations and computations that can be used to conduct neural network and deep learning. It provides low level programming to work with mathematics as well as methods for defining neural network layers. TensorFlow doesn't provide other machine learning method, like decision tree, logistic regression, k-means or pca.

**Scikit-learn** is a library for data mining and machine learning. It provides machine learning methods, including various supervised and unsupervised learnings. On the contrary to TensorFlow, it doesn't have deep learning framework.

I think the biggest advantage of using Tensorflow over Scikit Learn is the ability to do **automatic differentiation**. Tensorflow works on a neat idea that you build a computation graph for doing any computation and you always end up working on that graph. The nodes on the graph are the different operations and the edges are the tensors. This structure of visualizing a problem enables Tensorflow to provide us with automatic differentiation to perform backpropagation easily. Tensorflow provides other low level operations. Thus you can literally build any machine learning model. Tensorflow also allows us to use GPUs very easily for fast training.

**Scikit Learn** is a more high level api that provides you with easy ways to build standard machine learning models. Also you cannot build any model you like as scikit learn provides us with no such automatic differentiation toolkit. Scikit learn is more useful if you need to quickly code up and train some standard classifiers like Logistic Regression, SVM, etc.