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11 Most Popular Machine Learning Software Tools In 2021

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List and Comparison of the best paid as well as open source free Machine Learning Tools:

What is Machine Learning?

With the help of machine learning systems, we can examine data, learn from that data and make decisions. Machine learning involves algorithms and Machine learning library is a bundle of algorithms.

Where do we use machine learning in our day to day life? Let's explore some examples to see the answer to this question.
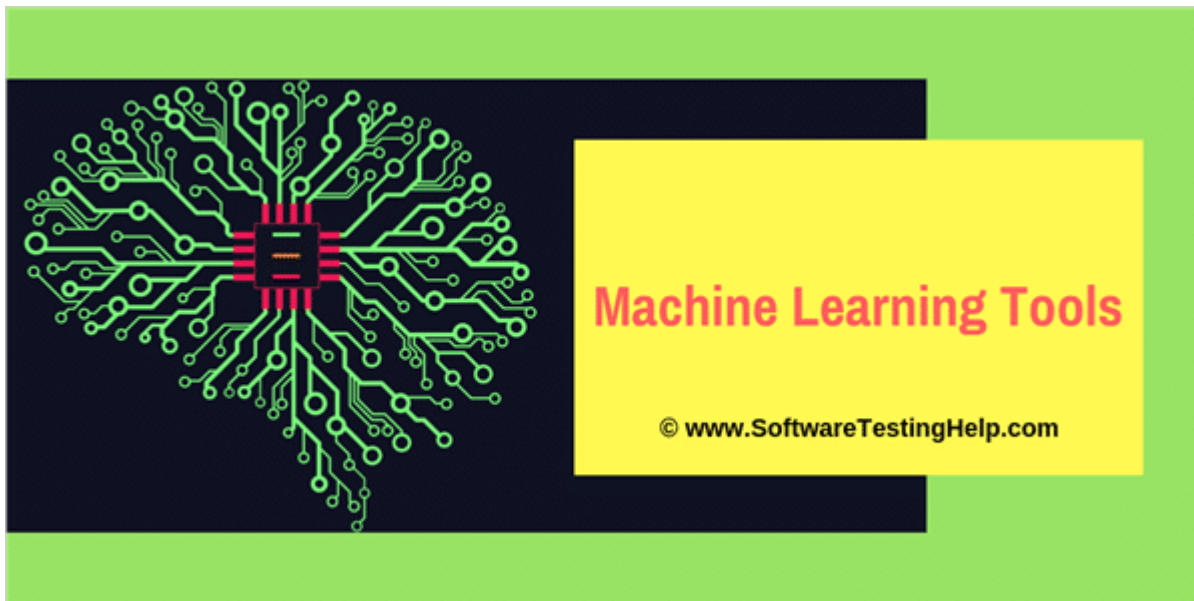
What You Will Learn: [hide]

Machine Learning Real Examples
How does Machine Learning Help us?
Types of Machine Learning

Machine Learning Real Examples

Given below are some real examples of ML:

Example 1:

If you have used Netflix, then you must know that it recommends you some movies or shows for watching based on what you have watched earlier. Machine Learning is used for this recommendation and to select the data which matches your choice. It uses the earlier data.

Example 2:

The second example would be Facebook.

When you upload a photo on Facebook, it can recognize a person in that photo and suggest you, mutual friends. ML is used for these predictions. It uses data like your friend-list, photos available etc. and it makes predictions based on that.

Example 3:

The third example is Software, which shows how you will look when you get older. This image processing also uses machine learning.

All these are some examples, that help us to understand, how machine learning is used. ML is similar to AI up to some extent, however, there is a difference between the two. It is related to data mining.

How does Machine Learning Help us?

It helps through powerful processing.

With the help of machine learning, systems make better decisions, at a high speed and most of the times they are accurate. Using this technique is inexpensive and it can analyze large and complex data sets.

Types of Machine Learning

Enlisted below are the various types:

- Supervised
- Unsupervised
- Reinforcement

Let's see each type in detail along with an example.

#1) Supervised Machine Learning

Past data is used to make predictions in supervised machine learning.

Example of supervised machine learning is the spam filtering of emails. We all use Gmail, Yahoo, or Outlook. Machine learning algorithms are used for deciding which email is spam and which is not.

Based on the previous data like received emails, data that we use etc., the system makes predictions about an email as for whether it is a spam or not. These predictions may not be perfect, but they are accurate most of the times.

Classification and Regression are the ML algorithms that come under Supervised ML.

#2) Unsupervised Machine Learning

Unsupervised machine learning finds hidden patterns.

Earlier we saw the example of Facebook (**Example 2**). This is an example of unsupervised machine learning. Clustering and Association algorithms come under this type of machine learning.

#3) Reinforcement Machine Learning

Reinforcement machine learning is used for improving or increasing efficiency.

Let's explore some examples of the above-mentioned algorithms.

- **Classification:** Spam filtering of emails.
- **Regression:** These algorithms also learn from the previous data like classification algorithms but it gives us the value as an output. **Example:** Weather forecast – as how much rain will be there?
- **Clustering:** These algorithms use data and give output in the form of clusters of data. **Example:** Deciding the prices of house/land in a particular area (geographical location).
- **Association:** When you buy products from shopping sites, the system recommends another set of products. Association algorithms are used for this recommendation

This is all about machine learning. **Now let's take a look at the top machine learning software.**

=> **Contact us** to suggest a listing here.

10+ Most Popular Machine Learning Software Tools

There are several Machine Learning Software that is available in the market. Enlisted below are the most popular ones among them.

Comparison Chart

	Platform	Cost	Written in language	Algorithms or Features
Scikit Learn	Linux, Mac OS, Windows	Free.	Python, Cython, C, C++	Classification Regression Clustering Preprocessing Model Selection Dimensionality reduction.
PyTorch	Linux, Mac OS, Windows	Free	Python, C++, CUDA	Autograd Module Optim Module nn Module
TensorFlow	Linux, Mac OS, Windows	Free	Python, C++, CUDA	Provides a library for dataflow programming.

	Platform	Cost	Written in language	Algorithms or Features
Weka	Linux, Mac OS, Windows	Free	Java	Data preparation Classification Regression Clustering Visualization Association rules mining
KNIME	Linux, Mac OS, Windows	Free	Java	Can work with large data volume. Supports text mining & image mining through plugins
Colab	Cloud Service	Free	-	Supports libraries of PyTorch, Keras, TensorFlow, and OpenCV
Apache Mahout	Cross-platform	Free	Java Scala	Preprocessors Regression Clustering Recommenders Distributed Linear Algebra.
Accors.Net	Cross-platform	Free	C#	Classification Regression Distribution Clustering Hypothesis Tests & Kernel Methods Image, Audio & Signal. & Vision
Shogun	Windows Linux UNIX Mac OS	Free	C++	Regression Classification Clustering Support vector machines. Dimensionality reduction Online learning etc.
Keras.io	Cross-platform	Free	Python	API for neural networks

	Platform	Cost	Written in language	Algorithms or Features
Rapid Miner	Cross-platform	Free plan Small: $2500 per year. Medium: $5000 per year. Large: $10000 per year.	Java	Data loading & Transformation Data preprocessing & visualization.

Let's Start!!

#1) Scikit-learn

Scikit-learn is for machine learning development in python. It provides a library for the Python programming language.

Features:

- It helps in data mining and data analysis.
- It provides models and algorithms for Classification, Regression, Clustering, Dimensional reduction, Model selection, and Pre-processing.
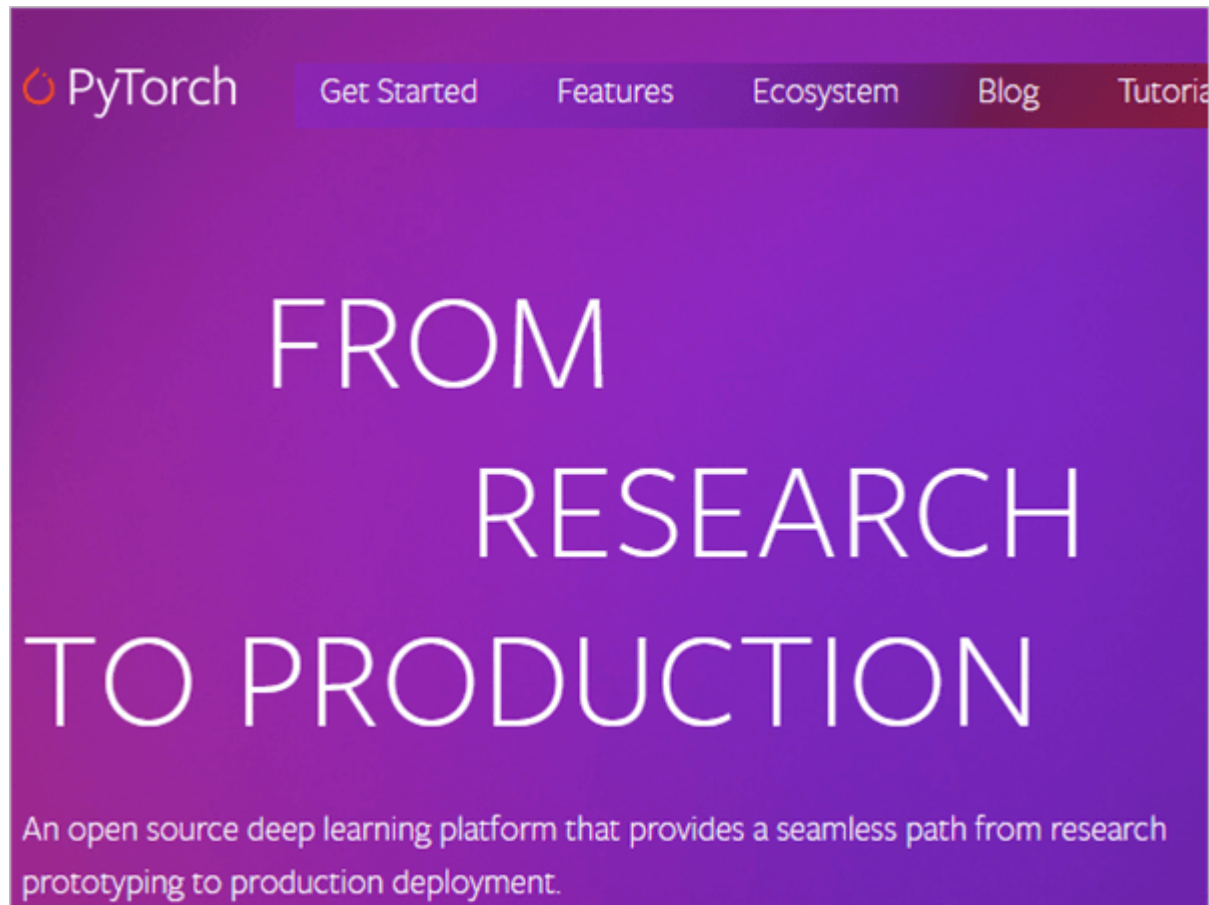
Pros:

- Easily understandable documentation is provided.
- Parameters for any specific algorithm can be changed while calling objects.

Tool Cost/Plan Details: Free.

Official Website: **scikit-learn**

#2) PyTorch

PyTorch is a Torch based, Python machine learning library. The torch is a Lua based computing framework, scripting language, and machine learning library.

Features:

- It helps in building neural networks through Autograd Module.
- It provides a variety of optimization algorithms for building neural networks.
- PyTorch can be used on cloud platforms.
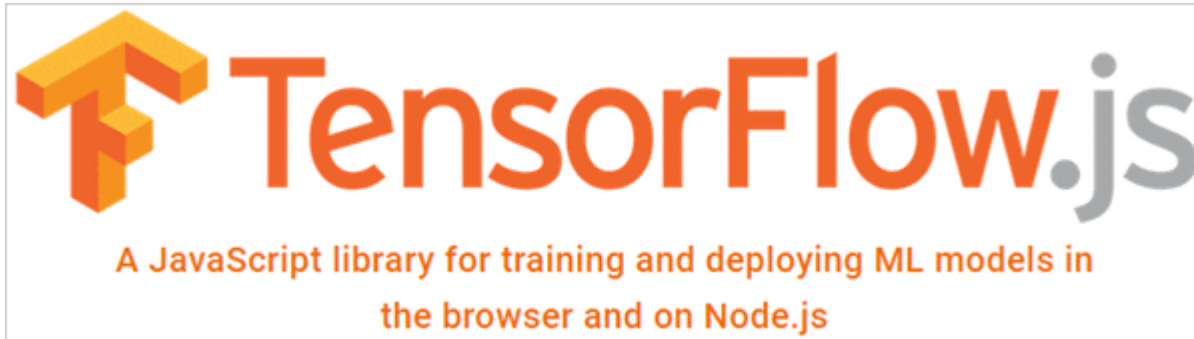- It provides distributed training, various tools, and libraries.

Pros:

- It helps in creating computational graphs.
- Ease of use because of the hybrid front-end.

Tool Cost/Plan Details: Free

Official Website: **Pytorch**

#3) TensorFlow

TensorFlow provides a JavaScript library which helps in machine learning. APIs will help you to build and train the models.

Features:

- Helps in training and building your models.
- You can run your existing models with the help of TensorFlow.js which is a model converter.
- It helps in the neural network.

Pros:

- You can use it in two ways, i.e. by script tags or by installing through NPM.
- It can even help for human pose estimation.

Cons:

- It is difficult to learn.

Tool Cost/Plan Details: Free

Official Website: **Tensorflow**

#4) Weka

These machine learning algorithms help in data mining.

Features:

- Data preparation
- Classification
- Regression
- Clustering
- Visualization and
- Association rules mining.

Pros:

- Provides online courses for training.
- Easy to understand algorithms.
- It is good for students as well.

Cons:

- Not much documentation and online support are available.

Tool Cost/Plan Details: Free

Official Website: **Waikato-weka**

#5) KNIME

KNIME is a tool for data analytics, reporting and integration platform. Using the data pipelining concept, it combines different components for machine learning and data mining.

Features:

- It can integrate the code of programming languages like C, C++, R, Python, Java, JavaScript etc.
- It can be used for business intelligence, financial data analysis, and CRM.

Pros:

- It can work as a SAS alternative.
- It is easy to deploy and install.
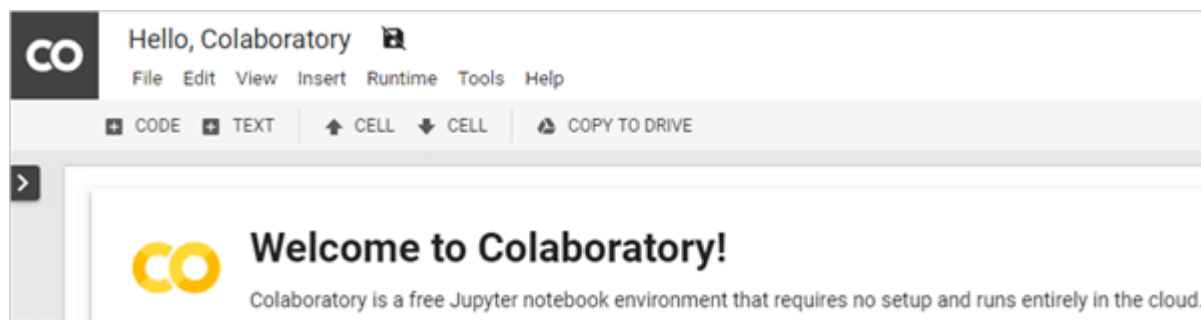- Easy to learn.

Cons:

- Difficult to build complicated models.
- Limited visualization and exporting capabilities.

Tool Cost/Plan Details: Free

Official website: **KNIME**

#6) Colab

Google Colab is a cloud service which supports Python. It will help you in building the machine learning applications using the libraries of PyTorch, Keras, TensorFlow, and OpenCV

Features:

- It helps in machine learning education.
- Assists in machine learning research.

Pros:

- You can use it from your google drive.

Tool Cost/Plan Details: Free

Official Website: **Colab**

#7) Apache Mahout

Apache Mahout helps mathematicians, statisticians, and data scientists for executing their algorithms.

Features:

- It provides algorithms for Pre-processors, Regression, Clustering, Recommenders, and Distributed Linear Algebra.
- Java libraries are included for common math operations.
- It follows Distributed linear algebra framework.

Pros:

- It works for large data sets.
- Simple
- Extensible

Cons:

- Needs more helpful documentation.
- Some algorithms are missing.

Tool Cost/Plan Details: Free

Official Website: Mahout – Apache

#8) Accord.Net

Accord.Net provides machine learning libraries for image and audio processing.

Features:

It provides algorithms for:

- Numerical linear algebra.
- Numerical optimization
- Statistics
- Artificial Neural networks.
- Image, audio, & signal processing.
- It also provides support for graph plotting & visualization libraries.

Pros:

- Libraries are made available from the source code and also through executable installer & NuGet package manager.

Cons:

- It supports only. Net supported languages.

Tool Cost/Plan Details: Free

Official Website: Accord.net

#9) Shogun

Shogun provides various algorithms and data structures for machine learning. These machine learning libraries are used for research and education.

Features:

- It provides support vector machines for regression and classification.
- It helps in implementing Hidden Markov models.
- It offers support for many languages like – Python, Octave, R, Ruby, Java, Scala, and Lua.

Pros:

- It can process large data-sets.
- Easy to use.
- Provides good customer support.
- Offers good features and functionalities.

Tool Cost/Plan Details: Free

Official Website: **Shogun**

#10) Keras.io

Keras is an API for neural networks. It helps in doing quick research and is written in Python.

Features:

- It can be used for easy and fast prototyping.
- It supports convolution networks.
- It assists recurrent networks.
- It supports a combination of two networks.
- It can be run on the CPU and GPU.

Pros:

- User-friendly
- Modular
- Extensible

Cons:

- In order to use Keras, you must need TensorFlow, Theano, or CNTK.

Tool Cost/Plan Details: Free

Official Website: **Keras**

#11) Rapid Miner

Rapid Miner provides a platform for machine learning, deep learning, data preparation, text mining, and predictive analytics. It can be used for research, education and application development.

Features:

- Through GUI, it helps in designing and implementing analytical workflows.
- It helps with data preparation.
- Result Visualization.
- Model validation and optimization.

Pros:

- Extensible through plugins.
- Easy to use.
- No programming skills are required.

Cons:

- The tool is costly.

Tool Cost/Plan Details:

It has four plans:

- Free plan
- **Small:** $2500 per year.
- **Medium:** $5000 per year.
- **Large:** $10000 per year.

Official Website: Rapid Miner

Conclusion

In this article, we have explored machine learning and the top machine learning software in detail.

Selection of the tool depends on your requirement for the algorithm, your expertise level, and the price of the tool. Machine learning library should be easy to use.

Most of these libraries are free except Rapid Miner. TensorFlow is more popular in machine learning, but it has a learning curve. Scikit-learn and PyTorch are also popular tools for machine learning and both support Python programming language. Keras.io and TensorFlow are good for neural networks.

Hope you would gained immense knowledge on Machine Learning Tools from this informative article.

=> **Contact us** to suggest a listing here.

Recommended Reading

- Best Software Testing Tools 2021 [QA Test Automation Tools]
- Data Mining Vs Machine Learning Vs Artificial Intelligence Vs Deep Learning
- Top 11 Most Powerful CyberSecurity Software Tools In 2021
- 11 Best ITSM Tools (IT Service Management Software) In 2021
- 11 Best Online Training Software For Hassle-Free Training In 2021
- Top 10 Most Popular Regression Testing Tools In 2021
- How to Install and Use VMWare Virtual Machine in Software Testing
- 10 Best Artificial Intelligence Software (AI Software Reviews In 2021)

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