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**sagemaker**

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Amazon SageMaker Python SDK is an open source library for training and deploying machine-learned models on Amazon SageMaker.

With the SDK, you can train and deploy models using popular deep learning frameworks: **Apache MXNet** and **TensorFlow**. You can also train and deploy models with **algorithms provided by Amazon**, these are scalable implementations of core machine learning algorithms that are optimized for SageMaker and GPU training. If you have **your own algorithms** built into SageMaker-compatible Docker containers, you can train and host models using these as well.

Here you'll find API docs for SageMaker Python SDK. The project home-page is in Github: <https://github.com/aws/sagemaker-python-sdk>, there you can find the SDK source, installation instructions and a general overview of the library there.



The SageMaker Python SDK consists of a few primary interfaces:

### **1.1 Estimators**

A high level interface for SageMaker training

### **1.2 Predictors**

Make real-time predictions against SageMaker endpoints with Python objects

### **1.3 Session**

### **1.4 Model**





A managed environment for MXNet training and hosting on Amazon SageMaker

## **2.1 MXNet**

### **2.1.1 MXNet Estimator**

### **2.1.2 MXNet Model**

### **2.1.3 MXNet Predictor**



A managed environment for TensorFlow training and hosting on Amazon SageMaker

### **3.1 TensorFlow**

#### **3.1.1 TensorFlow Estimator**

#### **3.1.2 TensorFlow Model**

#### **3.1.3 TensorFlow Predictor**



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## SageMaker First-Party Algorithms

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Amazon provides implementations of some common machine learning algorithms optimized for GPU architecture and massive datasets.

### **4.1 K-means**

The Amazon SageMaker K-means algorithm.

### **4.2 PCA**

The Amazon SageMaker PCA algorithm.

### **4.3 LinearLearner**

The Amazon SageMaker LinearLearner algorithm.

### **4.4 Amazon Estimators**

Base class for Amazon Estimator implementations

### **4.5 FactorizationMachines**

The Amazon SageMaker Factorization Machines algorithm.

## 4.6 LDA

The Amazon SageMaker LDA algorithm.

## 4.7 NTM

The Amazon SageMaker NTM algorithm.