Google Cloud Computing Foundation Course
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Lecture-83
Summary

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That concludes the let machines do the work module. Let us remind you of what you have just learned machine learning is a way to use standard algorithms to derive those predictive insights from data to make repeated decisions. The other part of machine learning the definition is around those standard algorithms ML uses these two entered algorithms to solve seemingly different problems. Whatever the domain ML model training requires examples.

An example consists of an input and a correct answer for that input that is called the label. After you train an ML model you can use it to predict the label of images that has never seen before. When you use the same algorithm on different data sets there are different features or inputs relevant to different use cases while the logic is different ML does not use logical rules for example the image classification network.

It is not a set of if this then that rules but a function that then learns how to distinguish between categories of images. This is what allows you to reuse the same code for other use cases that

have focused on the same kind of tasks. For machine learning your models will only be as good as the input data that you provide and more often than not you need a lot of training data for these models and the basic reason why ML models need a lot of high quality data is because they do not have what we have which is human generalized knowledge that we have accumulated over the years data is literally the only thing that they have access to and to learn from.

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Tensorflow is an open source high-performance library for numerical computation. Tensorflow as a numerical programming library is very appealing because you can write your computational code in a high-level language like Python and have it be executed in a very, very fast way at runtime. AI platform provides the services that you need to train and evaluate your model in the cloud. AI platform provides you with the tools to upload you are trained in a model to the cloud and services that you need to request online and batch predictions from your model in the cloud.

A AI platform provides API's to examine running jobs and various interfaces from managing your model and your models versions over time.

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Cloud Auto ML is a suite of machine learning products that enable users with limited ML expertise to train high quality models specific to their business use cases. The products include Auto ML video, intelligence natural language, translation and auto ML tables. Lastly Google's pre-trained and machine learning API is save you the time and effort of building and curating and training a brand new data set. So, you can jump right in and just start making predictions.