

Superior University Lahore

Software Engineering Department

Final Project Report

Machine Learning: Teachable Machine. With google.com

|  |  |
| --- | --- |
| Name | Ali Sajjad |
| Roll no | Bsem-S17-014 |
| Submitted to | Sir Arfan Jaffar |
| Class | BSSE 7A |

**Abstract**

Machine learning is the study of computer algorithms that improve automatically through experience. In this report we are utilizing an instrument made by google to make information models train the PC and out all the outcomes. Workable Machine is an online instrument that makes making AI models quick, simple, and open to everybody. We have utilized this instrument and made picture models of straightforward every day useable item and prepared the machine to separate between these items.

# **INTRODUCTION:**

In this report we have utilized an instrument made by google organization called Teachable Machine. Workable Machine is an online instrument that makes making AI models quick, simple, and available to everybody. Teachers, specialists, understudies, pioneers, producers of various types – truly, any individual who has a thought they need to investigate. No essential AI information required. You train a PC to perceive your pictures, sounds, and stances without composing any AI code. At that point, utilize your model in your own undertakings, destinations, applications, and that's only the tip of the iceberg. Workable Machine utilizes Tensorflow.js, a library for AI in Javascript, to prepare and run the models you make in your internet browser. Take a gander at the Teachable Machine library based on Tensorflow.js on GitHub. That is an increasingly unpredictable inquiry that we would like to do a more top to bottom write up on later on. Be that as it may, to give you a sense – these models utilize a strategy called move learning. There's a pretrained neural system, and when you make your own classes, you can kind of picture that your classes are turning into the last layer or venture of the neural net. In particular, both the picture and posture models are learning off of pretrained portable net models, and the sound model is based on Speech Commands.

# .METHADOLOGY

First you need to visit <https://teachablemachine.withgoogle.com/> . This site is the place from where we are going to start. This site provides us with all the necessary features to begin our project. The steps are mentioned below

* There are total 3 type models and it’s up to us which model class we going to select included images, audio which use spectrogram and pose.
* We will Select the Image model which works by taking the images of the objects or ourself using webcam
* After selecting it will take us to the next page on which there steps shows to be performed by us.
* First take pictures of the object as a data set for your first class.
* Secondly take the picture of the other object for the other class, Similarly you can take multiple classes and gather data.
* After getting data we will train the models.
* Then in preview panel you can see in hood graphs and there are different bars which increase when you show class images to webcam.
* At the end we could export our project and use it.

# CONCULSION:

The Teachable Machine is an incredible apparatus for AI. With it we can encourage the machine through various sort of models like Image Model, Audio Model and Pose Project we could prepare the machine to vary between the different classes and toward the end speak to them in a decent visual way.

# REFERNCES:

Teachable Machine:

<https://teachablemachine.withgoogle.com/>

Git Hub:

<https://github.com/Ali9118/AliRepo>