

1. Cartoonify Image with Machine Learning

Project Idea: Transform images into its cartoon. Yes, the objective of this machine learning project is to CARTOONIFY the images. Thus, you will build a python application that will transform an image into its cartoon using machine learning libraries.

2. Iris Flowers Classification Project

Project idea – The iris flowers have different species and you can distinguish them based on the length of petals and sepals. This is a basic project for machine learning beginners to predict the species of a new iris flower.

Dataset: [Iris Flowers Classification Dataset](#)

3. Emojify – Create your own emoji with Python

Project idea – The objective of this machine learning project is to classify human facial expressions and map them to emojis. You will build a convolution neural network to recognize facial emotions.

Then you will map those emotions with the corresponding emojis or avatars

<https://data-flair.training/blogs/create-emoji-with-deep-learning/>

4. Loan Prediction using Machine Learning

Project idea – The idea behind this ML project is to build a model that will classify how much loan the user can take.

It is based on the user's marital status, education, number of dependents, and employments. You can build a linear model for this project.

Dataset: [Loan Prediction Dataset](https://www.kaggle.com/altruistdelhiteo4/loan-prediction-problem-dataset)

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5. Housing Prices Prediction Project

Project idea – The dataset has house prices of the Boston residual areas.

The expense of the house varies according to various factors like crime rate, number of rooms, etc.

It is a good ML project for beginners to predict prices on the basis of new data.

Dataset: [Housing Price Prediction Dataset](#)

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Source Code: [Image Cartoonifier Project](#)

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Source Code: [Emojify Project](#)

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Dataset: [Housing Price Prediction Dataset](#)

6. MNIST Digit Classification Machine Learning Project

Project idea – **The MNIST digit classification python project enables machines to recognize handwritten digits.**

This project could be very useful for computer vision.

Here you need to use MNIST datasets to train the model using Convolutional Neural Networks.

Dataset: [MNIST Digit Recognition Dataset](#)

Source Code: [Handwritten Digit Recognition Project](#)

7. Stock Price Prediction using Machine Learning

Project idea – There are many datasets available for the stock market prices.

This machine learning beginner's project aims to predict the future price of the stock market based on the previous year's data.

Dataset: [Stock Price Prediction Dataset](#)

Source Code: [Stock Price Prediction Project](#)

8. Titanic Survival Project

Project idea – This will be a fun project to build as you will be predicting whether someone would have survived if they were in the titanic ship or not.

For this beginner's project, you will use the Titanic dataset that contains real data of the survivors and people who died in the Titanic ship.

Dataset: [Titanic Survival Dataset](#)

9. Wine Quality Test Project

Project idea – In this project, you can build an interface to predict the quality of the red wine.

It will use the chemical information of the wine and based on the machine learning model, it will give you the result of wine quality.

Dataset: [Wine Quality Dataset](#)

10. Fake News Detection Project

Project idea – Fake news spreads like a wildfire and this is a big issue in this era.

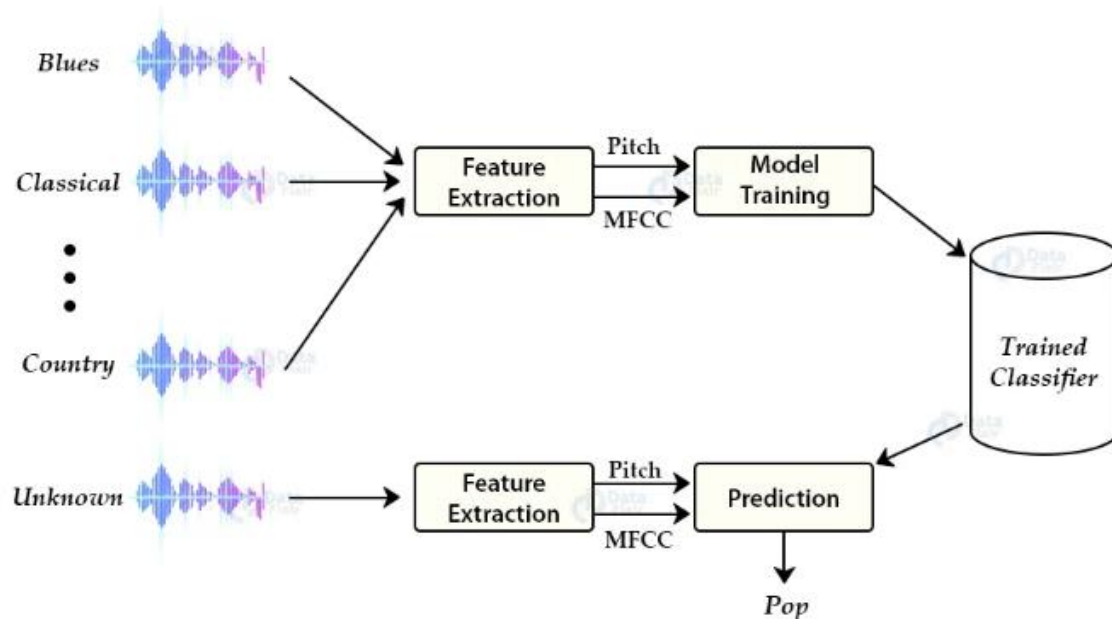
You can learn how to distinguish fake news from a real one. You can use supervised learning to implement a model like this.

Dataset: [Detecting Fake News Dataset](#)

Source Code: [Fake News Detection Project](#)

11. Music Genre Classification Machine Learning Project

1. Music Genre Classification Machine Learning Project



Project Idea: The idea behind this python machine learning project is to develop a machine learning project and automatically classify different musical genres from audio.

You need to classify these audio files using their low-level features of frequency and time domain.

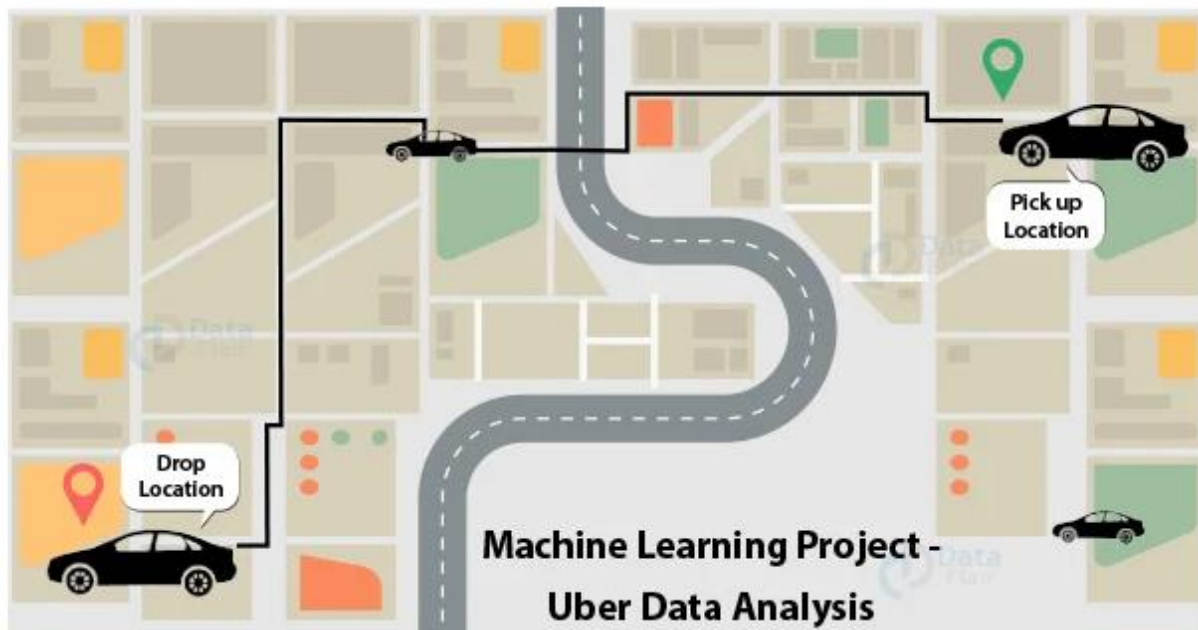
Source Code: [Music Genre Classification Project](#)

12. Bitcoin Price Predictor Project

Project idea – The bitcoin price predictor is a useful project. Blockchain technology is increasing and there are many digital currencies rising. This project will help you predict the price of the bitcoin using previous data.

Dataset: [Bitcoin Price Predictor Dataset](#)

13. Uber Data Analysis Project



Project idea – The project can be used to perform data visualization on the uber data. The dataset contains 4.5 millions of uber pickups in the new york city.

This much data needs to be represented beautifully in order to analyze the rides so that further improvements in the business can be made.

Dataset: [Uber Data Analysis Dataset](#)

Source Code: [Uber Data Analysis Project](#)

14. Personality Prediction Project

Project idea – The Myers Briggs Type Indicator is a personality type system that divides a person into 16 distinct personalities based on introversion, intuition, thinking and perceiving capabilities.

You can identify the personality of a person from the type of posts they put on social media.

Dataset: [Personality Prediction Datase](#)

15. Handwritten Character Recognition

Project Idea: In this machine learning project, you will detect & recognize handwritten characters, i.e, English alphabets from A-Z. You are going to achieve this by modeling a neural network.

Source Code: [Handwritten Character Recognition Project](#)

16. Xbox Game Prediction Project

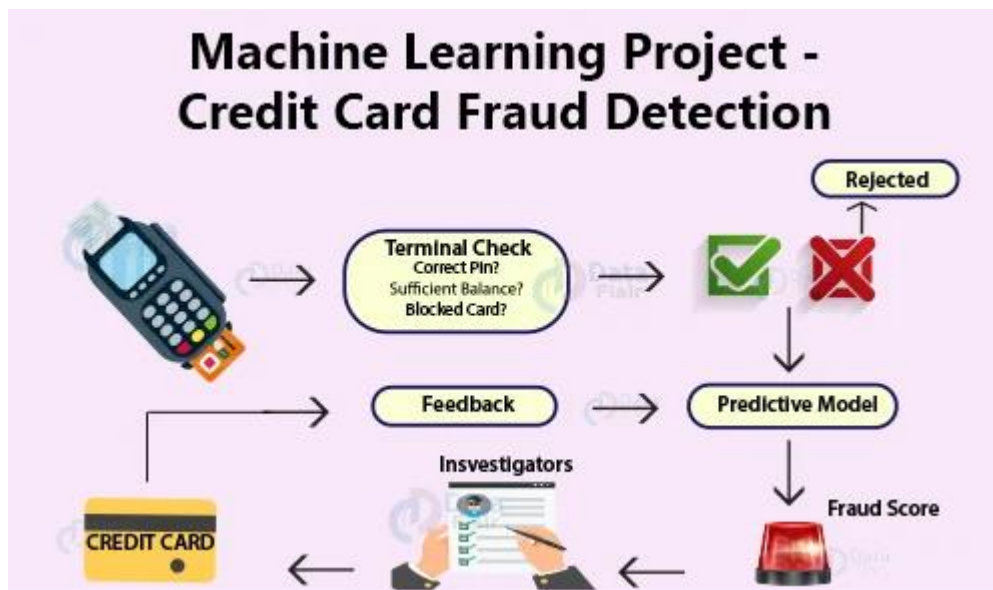
Project idea – The data generated by people while searching can be used to predict the interest of the users.

The BestBuy consumer electronics company has provided the data of millions of searches from users and you will predict the Xbox game that a user will be most interested to buy.

This will be used to recommend games to the visitors.

Dataset: [Xbox Game Prediction Dataset](#)

17. Credit Card Fraud Detection Project



Project idea – Companies that involve a lot of transactions with the use of cards need to find anomalies in the system.
The project aims to build a fraud detection model on credit cards.

You need to use the transaction and their labels as fraud or non-fraud to detect if new transactions made by the customer are fraud or not.

Dataset: [Credit Card Fraud Detection Dataset](#)

Source Code: [Credit Card Fraud Detection Project](#)

18. Sign Language Recognition with Machine Learning

Project Idea: A lot of research has been done to help people who are deaf and dumb.

In this sign language recognition project, you create a sign detector that detects sign language.

This can be very helpful for the deaf and dumb people in communicating with others

Source Code: [Sign Language Recognition Project](#)

19. Barbie with Brains Project

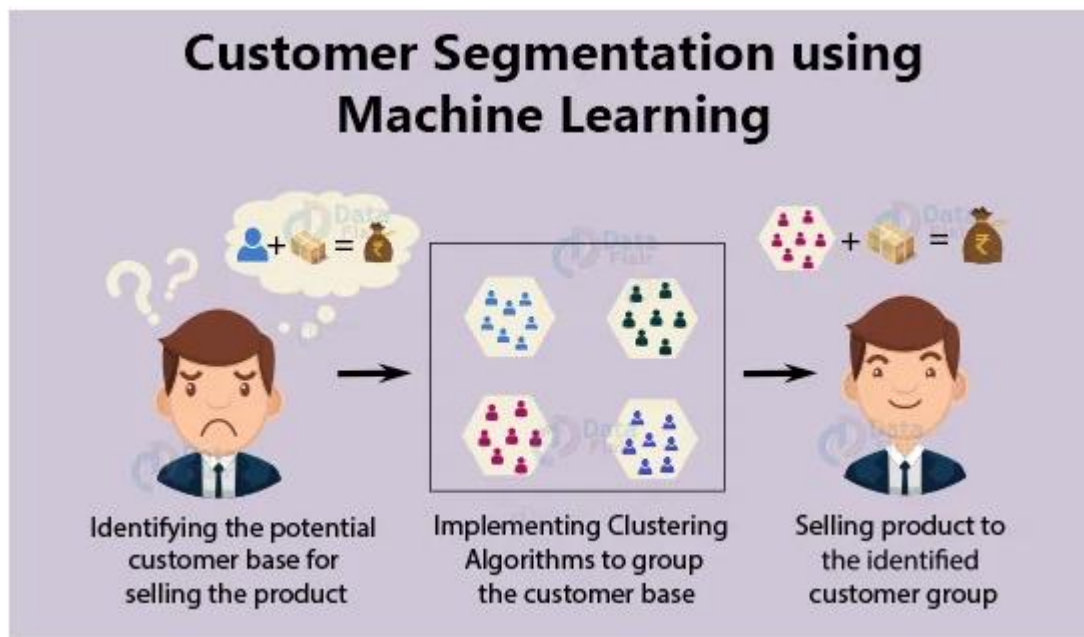
Project idea – Kid toys like barbie have a predefined set of words that they can speak repeatedly.

You can use machine learning methods to give the barbie some brain.

It will be more engaging when a toy can understand and speak with different sentences.

This is an excellent project that will improve the learning process of kids.

20. Customer Segmentation using Machine Learning



Project idea – Customer segmentation is a technique in which we divide the customers based on their purchase history, gender, age, interest, etc.

It is useful to get this information so that the store can get help in personalize marketing and provide customers with relevant deals.

With the help of this project, companies can run user-specific campaigns and provide user-specific offers rather than broadcasting same offer to all the users.

Dataset: [Customer Segmentation Dataset](#)

Source Code: [Customer Segmentation Project](#)

Advanced Machine Learning Projects

21. Sentiment Analysis using Machine Learning

Project idea – Sentiment analysis is the process of analyzing the emotion of the users.

You can categorize their emotions as positive, negative or neutral.

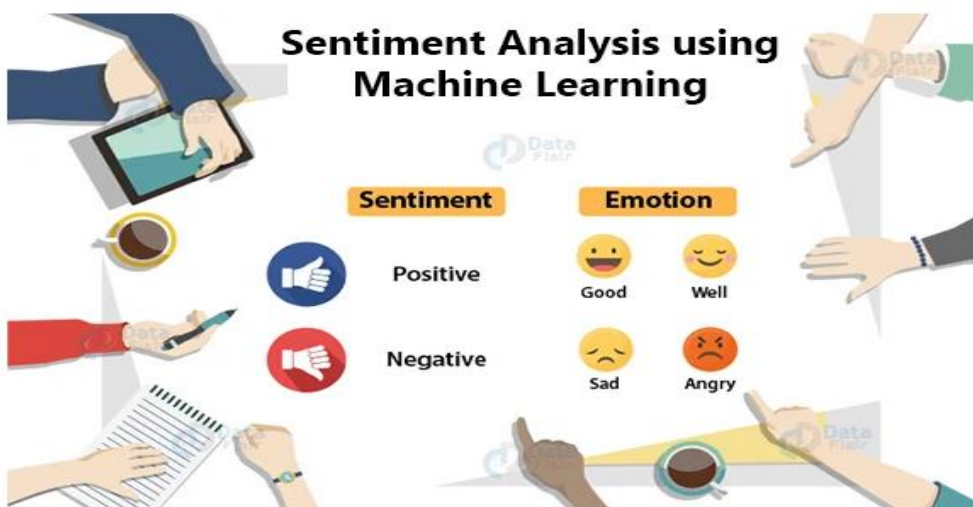
It is a great project to understand how to perform sentiment analysis and it is widely being used nowadays.

This is one of the most popular machine learning projects. The reason behind this is every company is trying to understand the sentiment of their customers if customers are happy, they will stay.

This project could show a path to reduce customer churn.

Dataset: [Sentiment Analysis Dataset](#)

Source Code: [Sentiment Analysis Project](#)



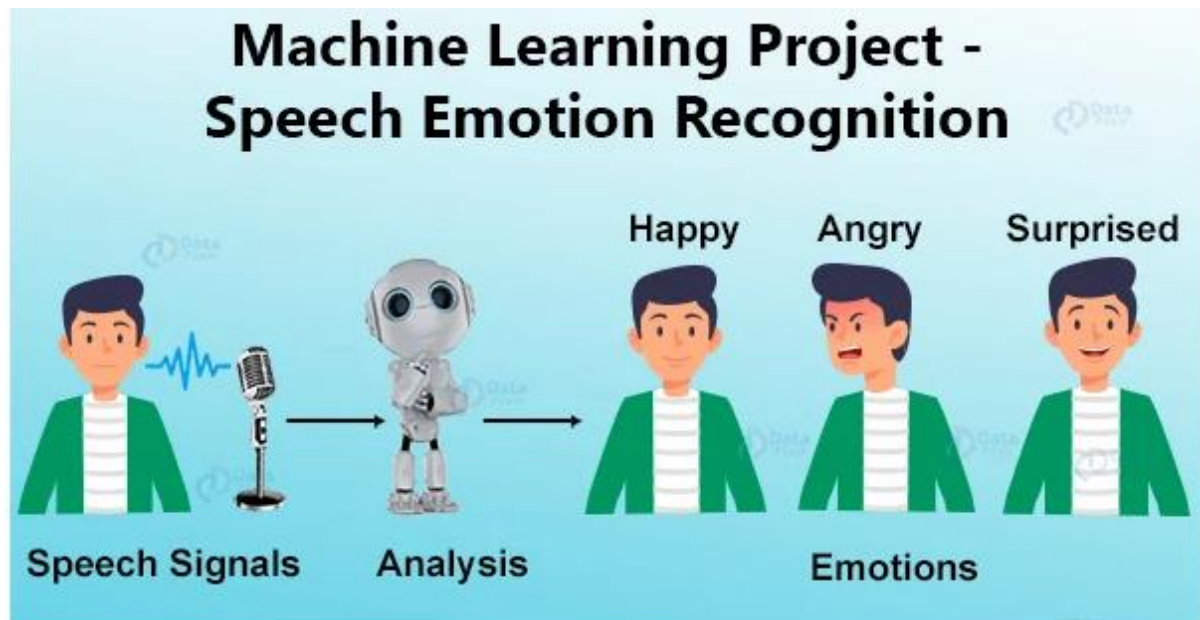
22. Enron Investigation Project

Project idea – The Enron company collapsed in 2000 but the data was made available for investigation.

The database has 500,000 emails of real employees who worked in the company so the data is very useful to perform data analytics and many data scientist use this dataset.

Dataset: [Enron Investigation Dataset](#)

23. Speech Emotion Recognition Machine Learning Project



Project idea – This is one of the best machine learning projects. The speech emotion recognition system uses audio data.

It takes a part of speech as input and then determines in what emotions the speaker is speaking.

You can identify different emotions like happy, sad, surprised, angry, etc. This project could be helpful for identifying customer emotions during the call with the call centre.

Dataset: [Speech Emotion Recognition Dataset](#)

Source Code: [Speech Emotion Recognition Project](#)

24. Online Grocery Recommendation using Collaborative Filtering

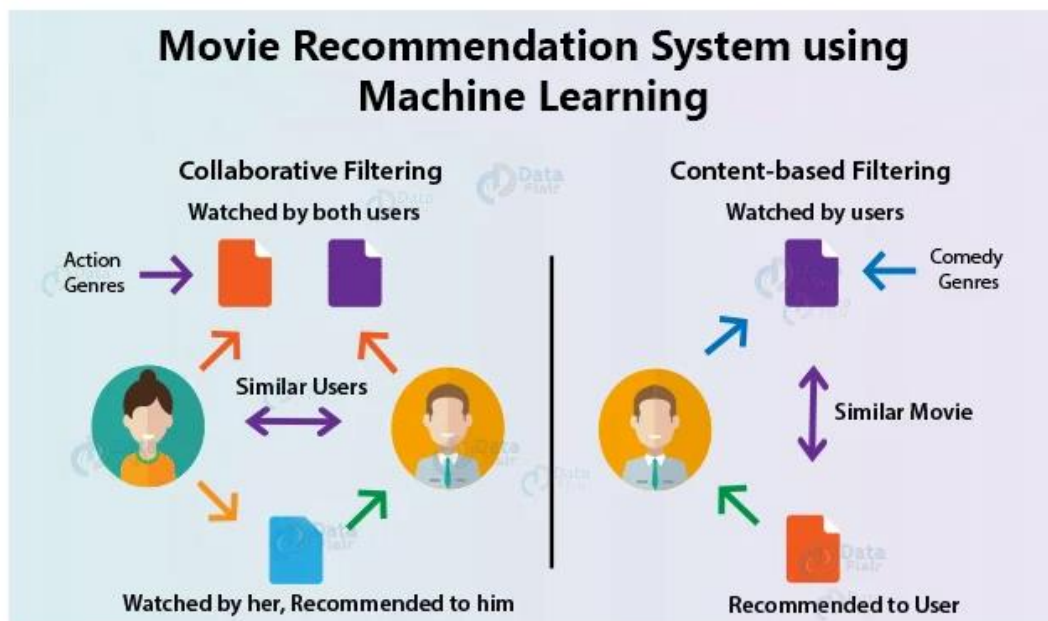
Project idea – Collaborative filtering is a great technique to filter out the items that a user might like based on the reaction of similar users.

A grocery recommendation system would be a great project to make customers realize what they would like in their baskets.

It is good for those who are planning to start the Grocery Store.

25. Movie Recommendation System using Machine Learning

6. Movie Recommendation System using Machine Learning



Project idea – Recommendation systems are everywhere, be it an online purchasing app, movie streaming app or music streaming. They all recommend products based on their targeted customers. A movie recommendation system is an excellent project to enhance your portfolio.

Dataset: [Movie Recommendation System Dataset](#)

Source Code: [Movie Recommendation System Project](#)

26. Automatic License Number Plate Recognition System

Project idea: The objective of this machine learning project is to detect and recognize the license number plate of a vehicle and read the license numbers printed on the plate.

This could be a good application for security scans, traffic monitoring, etc.

Source Code: [Automatic License Number Plate Recognition Project](#)

27. Image Segmentation with Machine Learning

Project Idea: Predict location as well as class to which each object in the image belongs.

Image segmentation results in granular level information about the shape of an image and thus an extension of the concept of Object Detection

Source Code: [Image Segmentation Project](#)

28. Email Spam-Filtering System

Mining text is one of the popular computation techniques widely applied in applications like text summarization, topic classification, machine translation, sentiment analysis, etc. Modern cybersecurity systems are utilizing machine learning methods a lot. Spam email detecting systems are one of them. Spam filtering also leverages text mining and document classification to segregate legitimate mails and spam emails. All modernized email services come with this segregation system that runs machine learning algorithms behind. Such a project comes under the text [classification problems](#). Building this kind of a ML project involves the following important steps -

- a. Text Processing
- b. Text Sequencing
- c. Model Selection
- d. Implementation

Use libraries like Sklearn, NumPy, Counter, Scrubadub, Beautifier, Seaborn, and machine learning frameworks like TensorFlow and Keras. For training such machine learning models, a [Spambase dataset](#) can help you. Spambase dataset is an open-source UCI machine learning repository comprising around 5569 emails, of which nearly 745 are spam emails.

