CAPSTONE PROJECT IDEAS

1. **Movie recommendation system:**

**Problem Statement:**

Movies are liked by everyone irrespective of age, gender, race, location, or genre. The best way to spend weekend is to lie down on sofa eating popcorn and watching favorite movie. However, to attract people to watch movies on OTT platforms like Netflix, Amazon is a big deal. If the viewers cannot find a movie, they will stop subscription which adversely affects business.

**Solution:**

Implementing a smart system like movie recommendation system that fulfills viewer’s choice can enhance business. For example, if viewer searched for suspense movies or watched a suspense movie, then our smart system can recommend movie of suspense genre and attract the viewer to watch more suspense movies thereby increasing subscription of OTT platforms increasing company’s overall turnover.

Dataset:

<https://www.kaggle.com/tmdb/tmdb-movie-metadata>

1. **Natural Language Processing:**

**Problem Statement:**

English is one of the difficult languages to learn. While writing a statement in English, we do make grammatical errors which does not look good in a formal email or newspaper or magazine. Thanks to ML, this problem can be solved by Natural Language Processing techniques.

**Solution:**

When a person writes a statement, our Natural Language Processing algorithm detects the grammatical errors in the statement and autocorrects it.

Dataset:

<https://paperswithcode.com/dataset/fce>

1. **Chatbots**

**Problem Statement:**

Due to online shopping, people are concerned about their shipment and dial customer service to get basic information like status of parcel, how long will it take to deliver, and so on. Therefore, answering all these basic questions is time consuming and affects customer service badly. The customers who are really in need does not receive attention on time and due to frustration, they negatively rate the actual good product or service which hampers retail business.

**Solution:**

Therefore, chatbots can be helpful that automatically answers basic questions and identify if the person really needs human help or not. For example, if portal shows parcel is delivered but the customer cannot find in the mailbox, then it is urgent to call the customer service and get the refund. So, if our chatbot can identify this problem then customers can get help who are in need.

Dataset:

<https://www.kaggle.com/konradb/chatbot-dataset-dureader>

1. **Object Detection:**

**Problem Statement:**

Self-driving cars are becoming popular nowadays. As the name says, the self-driving ability has provided humans to relax while driving. The automotive feature has many things to be considered when automobile is in self-driving mode. Some things like traffic rules, pedestrians crossing roads, moving cars, traffic light and so on. Therefore, object detection is utmost importance to avoid collisons/accidents.

**Solution:**

Building an AI/ML model that detect objects and safely drive the car in automated mode is possible if object detection mechanism works the best. For example, when traffic light is red colored, then the car should automatically stop and wait for it to turn green and then move when it is safe.

Dataset:

<https://www.kaggle.com/mindtrinket/google-2019-30k-train>

1. **Medical:**

**Problem Statement:**

Due to incurable diseases like Cancer, brain tumor, etc. spread quickly into body which costs human life. Therefore, it is quite significant to diagnose the disease in early stage and help patient save life.

**Solution:**

The ML algorithm can study the symptoms of such diseases based on reports or images and predict the patient will get cancer or not would be helpful. Then doctors can provide treatment early, if possible, to save human life.

Dataset:

<https://www.kaggle.com/ahmedhamada0/brain-tumor-detection>

Therefore, in a nutshell, the AI/ML job is to better human life or enhance business and can be used for betterment of future generations.