# Project Report – Ted Talks

## 1. Abstract

The dataset contains information about all audio-video recordings of TED Talks uploaded to the official TED.com website until September 21st, 2017. The TED main dataset contains information about all talks including number of views, number of comments, descriptions, speakers and titles. There is a column called 'Ratings' which has different rating tags like Beautiful, OK, Obnoxious etc. and each of them have a count associated with them for each talk. There is another column called 'Tags' which represent the various categories for the talks like technology, children, environment, etc.

## 2. Introduction

In this assignment for analysis a unified, quantitative measure of rating (aggregate rating per view) was extracted from the data set. Two neural networks were trained on various features, including talk sentiment and themes, to predict this measure, achieving good accuracy. The relationship between ratings and these features was determined through examining the weights of the single-layer neural network.

## 3. Code with documentation

```python
model = Sequential()
model.add(Dense(64,input_dim=feature_size,kernel_regularizer=l2(0.01)))
model.add(Dense(1))
model.compile(loss='mean_squared_error',optimizer="adam")
history = model.fit(x=x_train,y=y_train,batch_size=64,epochs=20,validation_data=(x_val,y_val))
```

- The sequential model is a linear stack of layers.
- .add() helps add more layers to the
- Some 2D layers, such as Dense, support the specification of their input shape via the argument input_dim

**4. Results**

It was seen that science, technology, collaboration, society and humanity tend to generate the highest ratings per view.

All tags have positive correlations, but categories such as TEDx, environment, entertainment, and creativity have small positive coefficients.

**5. Discussion**

To get more accurate results.

To try and implement more machine learning algorithms to find a better fit for this dataset

**6. References**

*[1] https://www.kaggle.com/lpang36/analysis-of-ted-talk-ratings*

*[2] https://www.kaggle.com/rounakbanik/ted-talks*

*[3] https://www.udemy.com/machinelearning/learn/v4/t/lecture/6683128?start=0*