Deep Learning Project

Facial Emotion Recognition in job interviews

Abstract:

The idea of this project is to use facial emotion recognition on job interviews. Companies can use this technology to screen prospective candidates based on some factors like body language and mood. Therefore, they will be able to find the person whose personality and characteristics are best suited to the job. The goal is to build a Convolutional Neural Network (CNN) model that uses the dataset images to determine the correct emotion type of a person face.

Design:

to build a Convolutional Neural Network (CNN) model that uses the dataset images to determine the correct emotion type of a person fac.

Data:

The dataset is from Kaggle (link). It consists of 32,298 examples of 48x48 pixel gray scale images of faces divided into train and test dataset. Images are categorized based on the emotion shown in the facial expressions (happiness, neutral, sadness, anger, surprise, disgust, fear). The train set consists of 28,709 examples and the test set consists of 3,589 examples.

Algorithm:

VGGN 16

VGG16 with Transfer Learning

Tools:

- Python
- Jupyter notebook
- Pandas and NumPy packages to manipulate data.
- Matplotlib and seaborn library for visualizing data.
- Jupyter notebook to execute the code.

Communication:

In addition to the slides and the Jupyter notebook Code submitted, we will deliver presentation slides in the final day.