Deep Learning

Public Decorum

By: Ebtesam Sultan - Nuha Aljohani - Hanaa Algarni

Abstract:

To ensure that the Saudi society is free from behaviors that contradict the values of our Muslim society and our authentic customs.

The regulation of preserving public decorum has been implemented based on Vision 2030 without clashing or violating the principles of the conservative Saudi society, from this point of view, our project, which was created through monitoring devices, we target this category that violates public decorum through artificial intelligence.

Such as:

-Speaking in words that are offensive or harmful to those who frequent these places.

-Using or setting fires in gardens or in public places and places that are not permitted.

Data Description:

we extracted the dataset from Kaggle website contain:

- o Fire images dataset (3000 flames images, 3000 non flames images)
- o Violence dataset (3000 violence images, 3000 nonviolence images)

Algorithms:

- CNN WITH Conv2D Model.

- CNN - CRNN Model.

- FULLY-CONNECTED Model.

Tools:

- **Technologies**: Python, Jupyter Notebook, PowerPoint
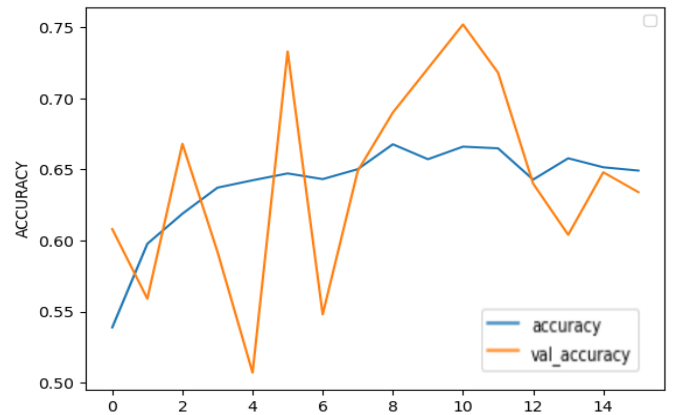- **Libraries**:Pandas, NumPy,Sklearn, Kerace , TenserFlow, Matplotlib, Seaborn

Communication:

The best for Violence data set Model is:

-Eposh= 50
-Layers: 5

Model	CNN–RCNN
Accuracy	0.77
Val–Accuracy	0.68
Loss	0.5

The best Model for Fire data set is CNN-Cinv2D Model with:

- Eposh= 50
- Layers: 6

Model	CNN–CONV2D
Accuracy	0.75
Val–Accuracy	0.71
Loss	0.5