#### **model-00020-0.58814-0.72941-0.93977-0.60000.h5** and **model-00050-0.68615-0.68261-1.11482-0.60833.h5** has best model out of all trained models

#### Training Accuracy : 73%, Validation Accuracy : 62% and second model has Training Accuracy : 69%, Validation Accuracy : 61%

|  |  |  |  |
| --- | --- | --- | --- |
| **Experiment Number** | **Model** | **Result (training and validation accuracy)** | **Decision + Explanation** |
| **1** | **CNN + GRU** | **90% and 60%** | **Overfit model**  **Trying adding drop outs**  **Trainable params:** 99,269 |
| **2** | **CNN + GRU** | **49% and 41%** | **Resolved overfit**  **Trainable params:** 42,842,565 |
| **3** | **CNN + GRU** | **Batch size and epochs 5, 20**  **55% and 45%** | **Increase the amount of trainable data/ reduce the filter size** |
| **4** | **CNN + GRU Augmentation** | **25% and 29%** |  |
| **5** | **CNN+ RNN+ GRU** | **69% and 61%** | **by increasing epoch and batch size got a model** |
| **6** | **CNN+ RNN+ GRU** | **73% and 62%** | **By layer changes and with less epoch and batch size got a model** |
| **7** | **CNN+ RNN+ LSTM** | **30% and 34%** | **Trainable params:** 57,116,869  **If we increase and batch size and epoch it will better model than GRU but model becomes complex and trainable params are increased** |