

# Improving your Neural Network

# Model Checkpointing



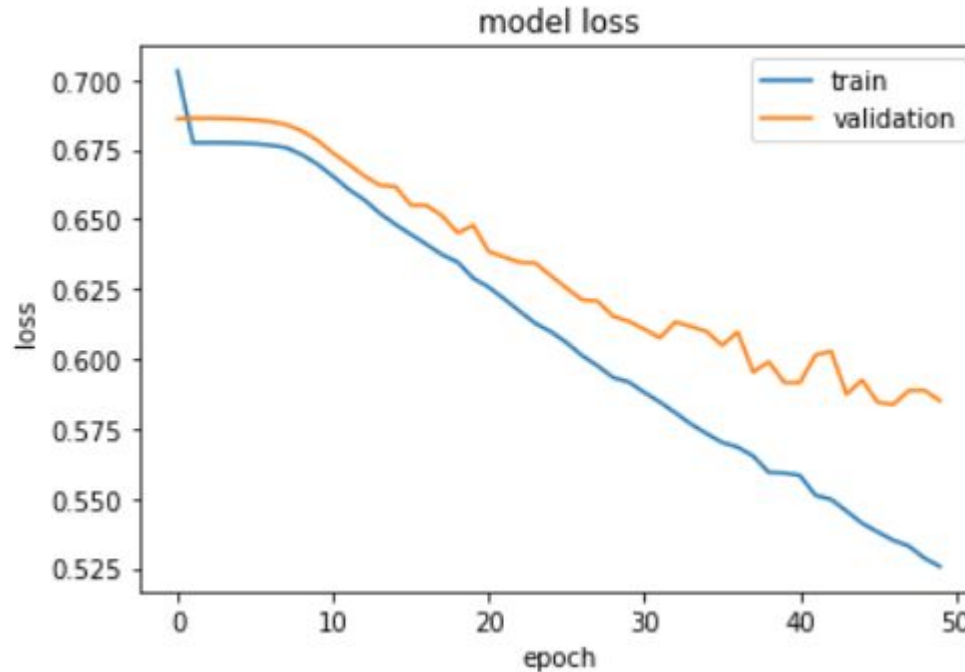
# Model Checkpointing

1. Saves the best model



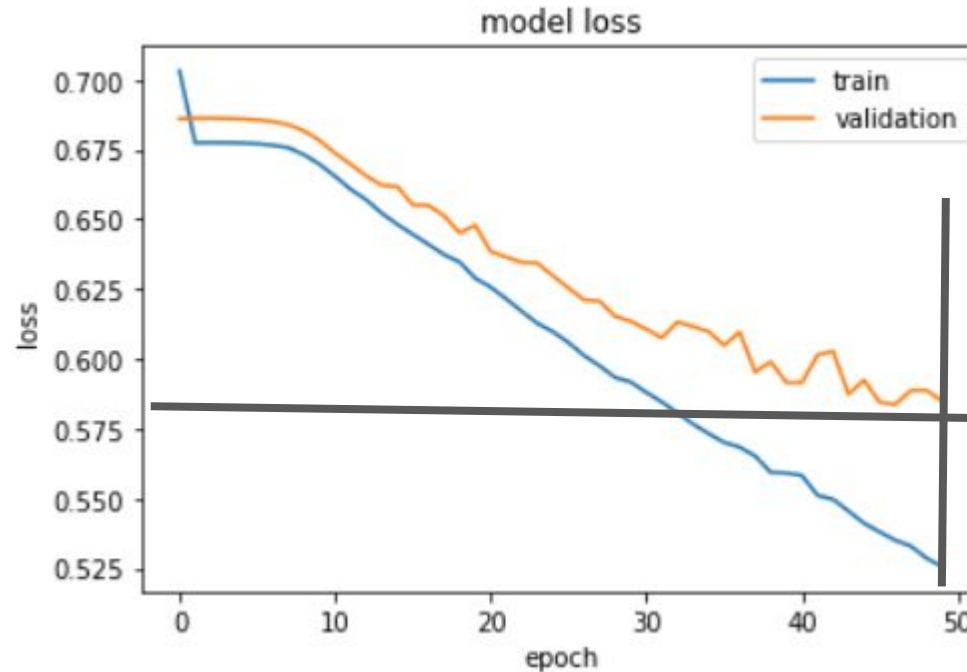
# Model Checkpointing

1. Saves the best model



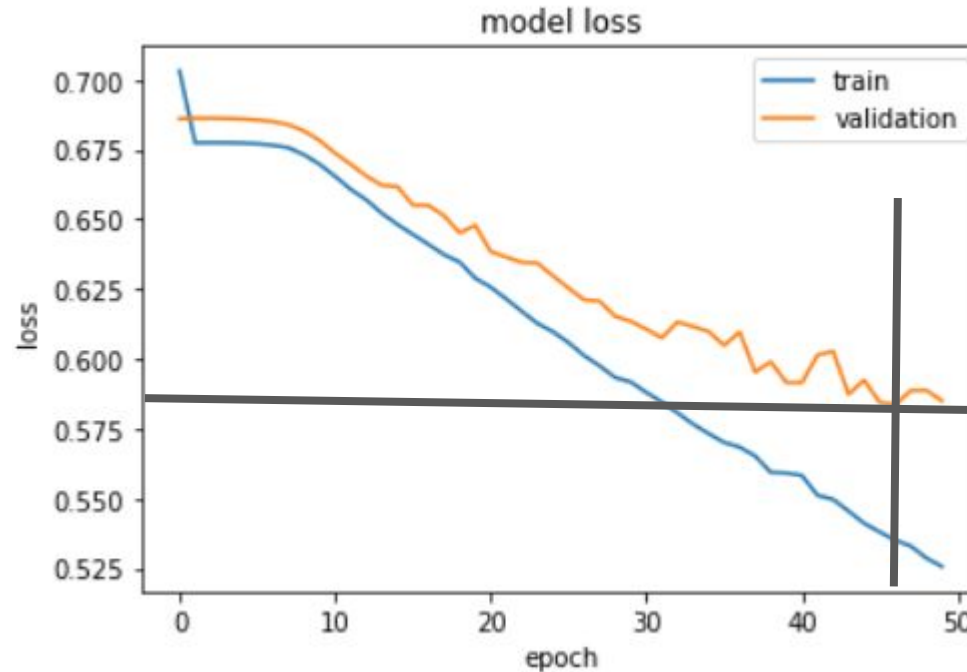
# Model Checkpointing

1. Saves the best model



# Model Checkpointing

1. Saves the best model



# Model Checkpointing

## 1. Saves the best model

```
13/13 [=====] - 17s 1s/step - loss: 0.8314 - acc: 0.5804 - val_loss: 0.6252 - val_acc: 0.6530
Epoch 45/50
13/13 [=====] - 17s 1s/step - loss: 0.8396 - acc: 0.5799 - val_loss: 0.6101 - val_acc: 0.6629
Epoch 46/50
13/13 [=====] - 17s 1s/step - loss: 0.8319 - acc: 0.5726 - val_loss: 0.6260 - val_acc: 0.6728
Epoch 47/50
13/13 [=====] - 17s 1s/step - loss: 0.8087 - acc: 0.5898 - val_loss: 0.6973 - val_acc: 0.5992
Epoch 48/50
13/13 [=====] - 17s 1s/step - loss: 0.8252 - acc: 0.5965 - val_loss: 0.6649 - val_acc: 0.6331
Epoch 49/50
13/13 [=====] - 17s 1s/step - loss: 0.8836 - acc: 0.5787 - val_loss: 0.6457 - val_acc: 0.6615
Epoch 50/50
13/13 [=====] - 18s 1s/step - loss: 0.8232 - acc: 0.5846 - val_loss: 0.6291 - val_acc: 0.6487
```

# Model Checkpointing

## 1. Saves the best model

```
13/13 [=====] - 17s 1s/step - loss: 0.8314 - acc: 0.5804 - val_loss: 0.6252 - val_acc: 0.6530
Epoch 45/50
13/13 [=====] - 17s 1s/step - loss: 0.8396 - acc: 0.5799 - val_loss: 0.6101 - val_acc: 0.6629
Epoch 46/50
13/13 [=====] - 17s 1s/step - loss: 0.8319 - acc: 0.5726 - val_loss: 0.6260 - val_acc: 0.6728
Epoch 47/50
13/13 [=====] - 17s 1s/step - loss: 0.8087 - acc: 0.5898 - val_loss: 0.6973 - val_acc: 0.5992
Epoch 48/50
13/13 [=====] - 17s 1s/step - loss: 0.8252 - acc: 0.5965 - val_loss: 0.6649 - val_acc: 0.6331
Epoch 49/50
13/13 [=====] - 17s 1s/step - loss: 0.8836 - acc: 0.5787 - val_loss: 0.6457 - val_acc: 0.6615
Epoch 50/50
13/13 [=====] - 18s 1s/step - loss: 0.8232 - acc: 0.5846 - val_loss: 0.6291 - val_acc: 0.6487
```



# Model Checkpointing

## 1. Saves the best model

```
13/13 [=====] - 17s 1s/step - loss: 0.8314 - acc: 0.5804 - val_loss: 0.6252 - val_acc: 0.6530
Epoch 45/50
13/13 [=====] - 17s 1s/step - loss: 0.8396 - acc: 0.5799 - val_loss: 0.6101 - val_acc: 0.6629
Epoch 46/50
13/13 [=====] - 17s 1s/step - loss: 0.8319 - acc: 0.5726 - val_loss: 0.6260 - val_acc: 0.6728
Epoch 47/50
13/13 [=====] - 17s 1s/step - loss: 0.8087 - acc: 0.5898 - val_loss: 0.6973 - val_acc: 0.5992
Epoch 48/50
13/13 [=====] - 17s 1s/step - loss: 0.8252 - acc: 0.5965 - val_loss: 0.6649 - val_acc: 0.6331
Epoch 49/50
13/13 [=====] - 17s 1s/step - loss: 0.8836 - acc: 0.5787 - val_loss: 0.6457 - val_acc: 0.6615
Epoch 50/50
13/13 [=====] - 18s 1s/step - loss: 0.8232 - acc: 0.5846 - val_loss: 0.6291 - val_acc: 0.6487
```

# Model Checkpointing

## 1. Saves the best model

```
13/13 [=====] - 17s 1s/step - loss: 0.8314 - acc: 0.5804 - val_loss: 0.6252 - val_acc: 0.6530
Epoch 45/50
13/13 [=====] - 17s 1s/step - loss: 0.8396 - acc: 0.5799 - val_loss: 0.6101 - val_acc: 0.6629
Epoch 46/50
13/13 [=====] - 17s 1s/step - loss: 0.8319 - acc: 0.5726 - val_loss: 0.6260 - val_acc: 0.6728
Epoch 47/50
13/13 [=====] - 17s 1s/step - loss: 0.8087 - acc: 0.5898 - val_loss: 0.6973 - val_acc: 0.5992
Epoch 48/50
13/13 [=====] - 17s 1s/step - loss: 0.8252 - acc: 0.5965 - val_loss: 0.6649 - val_acc: 0.6331
Epoch 49/50
13/13 [=====] - 17s 1s/step - loss: 0.8836 - acc: 0.5787 - val_loss: 0.6457 - val_acc: 0.6615
Epoch 50/50
13/13 [=====] - 18s 1s/step - loss: 0.8232 - acc: 0.5846 - val_loss: 0.6291 - val_acc: 0.6487
```

# Model Checkpointing

1. Saves the best model
2. In case of system failure, not everything is lost.



# Model Checkpointing in keras

Monitor

Mode

Analytics  
Vidhya

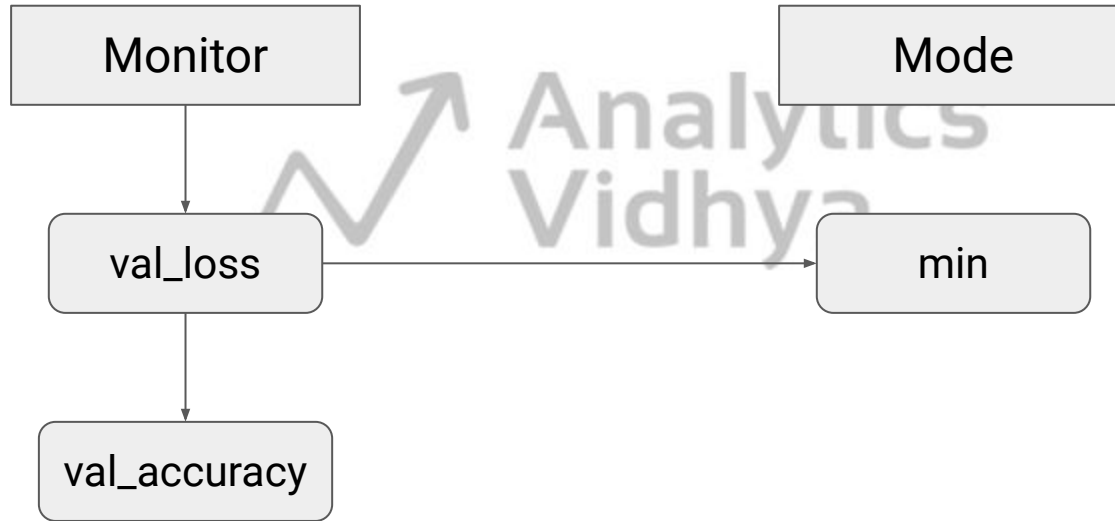
# Model Checkpointing in keras



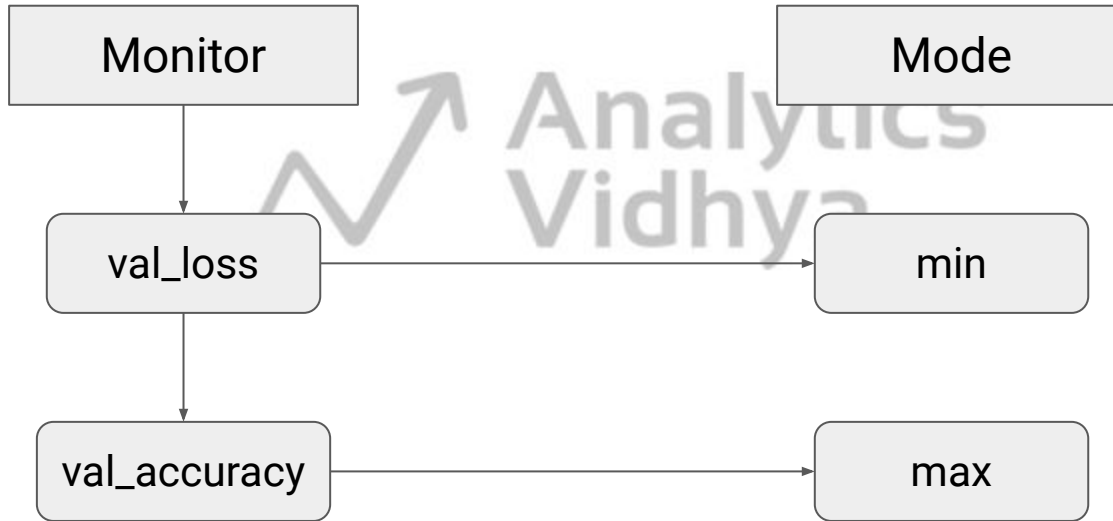
# Model Checkpointing in keras



# Model Checkpointing in keras



# Model Checkpointing in keras







Thank You