# **Model Exploration-02**

#### ResNet50

Class Column	# of Classes	Batch size	Data augmentation	Learning rate	Link
baseColour	7	10	rotation_range=30 zoom_range=0.15 Width_shift_range=0.2 height_shift_range=0.2 shear_range=0.15 horizontal_flip=True fill_mode="nearest"	0.0001	Result-01
baseColour	7	10	rotation_range=30 zoom_range=0.15 Width_shift_range=0.2 height_shift_range=0.2 shear_range=0.15 horizontal_flip=True fill_mode="nearest"	0.00005	Result-02
baseColour	7	10	rotation_range=30 zoom_range=0.15 Width_shift_range=0.2 height_shift_range=0.2 shear_range=0.15 horizontal_flip=True fill_mode="nearest"	0.001	Result-03

### Accuracy and results-01

Model description

- ResNet50 25 upper layers are trainable
- Dense-512 (prediction)

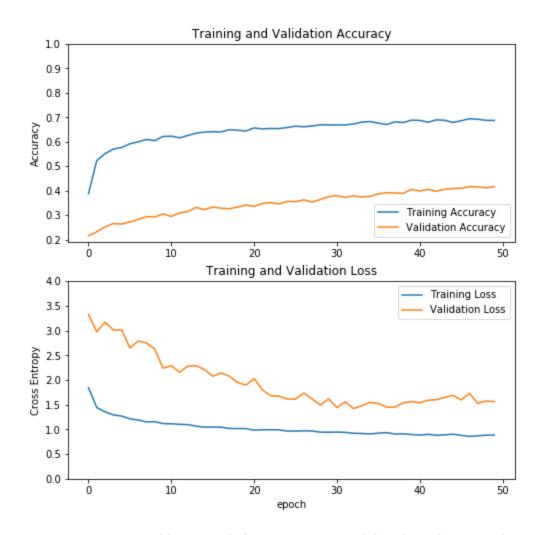


Fig 01: Accuracy and loss graph for ResNet50 model with 25 fine tuned upper layers

## Accuracy and results-02

Model description

- ResNet50 25 upper layers are trainable
- Dense-512
- Dropout-0.2
- Dense-512 (prediction)

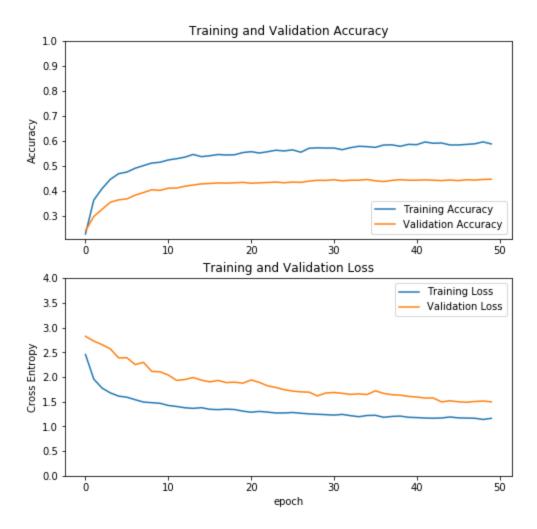


Fig 02: Accuracy and loss graph for ResNet50 model with 25 fine tuned upper layers, a fully connected dense layer and a dropout.

### Accuracy and results-01

Model description

- ResNet50 25 upper layers are trainable
- Dense-512 (prediction)

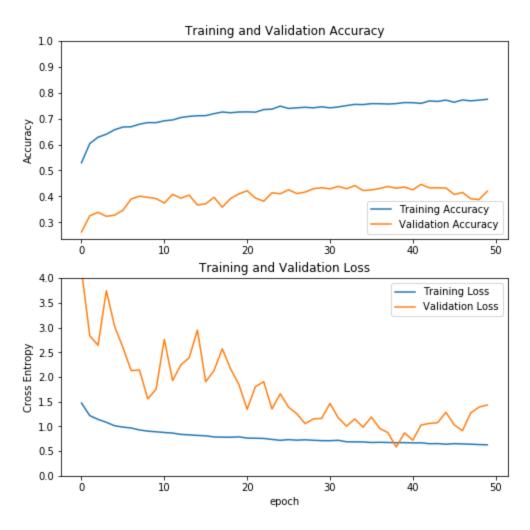


Fig 03: Accuracy and loss graph for ResNet50 model with 25 fine tuned upper layers and no custom layers on top of it.

#### Note:

1. Train more layers overfit the model.