# Phase 2 – Research

## 1st

Model: "model"

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Layer (type) Output Shape Param #

=================================================================

input\_1 (InputLayer) [(None, 150, 150, 3)] 0

sequential (Sequential) (None, 150, 150, 3) 0

conv2d (Conv2D) (None, 148, 148, 32) 896

max\_pooling2d (MaxPooling2D (None, 74, 74, 32) 0

)

conv2d\_1 (Conv2D) (None, 72, 72, 64) 18496

max\_pooling2d\_1 (MaxPooling (None, 36, 36, 64) 0

2D)

conv2d\_2 (Conv2D) (None, 34, 34, 128) 73856

flatten (Flatten) (None, 147968) 0

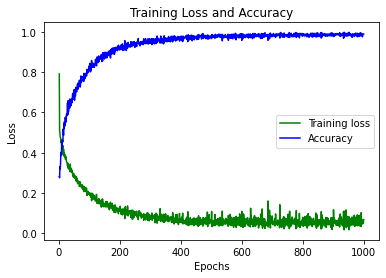
dense (Dense) (None, 5) 739845

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Total params: 833,093

Trainable params: 833,093

Non-trainable params: 0



## 2nd

Model: "model"

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Layer (type) Output Shape Param #

=================================================================

input\_1 (InputLayer) [(None, 150, 150, 3)] 0

sequential (Sequential) (None, 150, 150, 3) 0

conv2d (Conv2D) (None, 148, 148, 32) 896

max\_pooling2d (MaxPooling2D (None, 74, 74, 32) 0

)

conv2d\_1 (Conv2D) (None, 72, 72, 64) 18496

max\_pooling2d\_1 (MaxPooling (None, 36, 36, 64) 0

2D)

conv2d\_2 (Conv2D) (None, 34, 34, 128) 73856

flatten (Flatten) (None, 147968) 0

dense (Dense) (None, 5) 739845

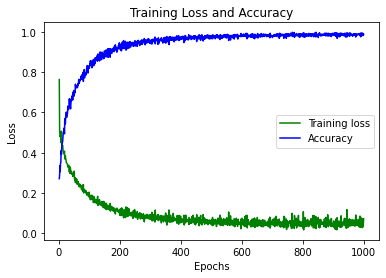
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Total params: 833,093

Trainable params: 833,093

Non-trainable params: 0

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Phase 3

32, 16 => Did not grow as fast or reach as high of accuracy

Model: "model\_1"

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Layer (type) Output Shape Param #

=================================================================

input\_2 (InputLayer) [(None, 150, 150, 3)] 0

sequential\_1 (Sequential) (None, 150, 150, 3) 0

conv2d\_3 (Conv2D) (None, 148, 148, 32) 896

max\_pooling2d\_2 (MaxPooling (None, 37, 37, 32) 0

2D)

conv2d\_4 (Conv2D) (None, 35, 35, 16) 4624

flatten\_1 (Flatten) (None, 19600) 0

dense\_1 (Dense) (None, 10) 196010

dense\_2 (Dense) (None, 5) 55

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Total params: 201,585

Trainable params: 201,585

Non-trainable params: 0

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Model 4

Add another Conv layer to 3; 64, 32, 16, 8

Model Made with Input as Output

Model: "model\_5"

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Layer (type) Output Shape Param #

=================================================================

input\_7 (InputLayer) [(None, 150, 150, 4)] 0

conv2d\_11 (Conv2D) (None, 148, 148, 32) 1184

flatten\_5 (Flatten) (None, 700928) 0

dense\_9 (Dense) (None, 5) 3504645

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Total params: 3,505,829

Trainable params: 3,505,829

Non-trainable params: 0

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