**Team members:**

Zexuan Li

Kat Pe Benito

**basic\_model:**

**Initial Network：**

**Layer (type) Output Shape Param #**

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

conv2d (Conv2D) (None, 148, 148, 8) 224

max\_pooling2d (MaxPooling2D (None, 74, 74, 8) 0

)

conv2d\_1 (Conv2D) (None, 72, 72, 16) 1168

max\_pooling2d\_1 (MaxPooling (None, 36, 36, 16) 0

2D)

conv2d\_2 (Conv2D) (None, 34, 34, 32) 4640

flatten (Flatten) (None, 36992) 0

dense (Dense) (None, 64) 2367552

dense\_1 (Dense) (None, 3) 195

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

**Graph**:

图表, 折线图

描述已自动生成

**Best learned model:**

Epoch 8/15

13/13 [==============================] - 4s 253ms/step - loss: 0.4183 - accuracy: 0.8369 - val\_loss: 0.9974 - val\_accuracy: 0.6400

**dropout\_model**

**With Dropout:**

Layer (type) Output Shape Param #

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

conv2d (Conv2D) (None, 148, 148, 8) 224

max\_pooling2d (MaxPooling2D (None, 74, 74, 8) 0

)

dropout (Dropout) (None, 74, 74, 8) 0

conv2d\_1 (Conv2D) (None, 72, 72, 16) 1168

max\_pooling2d\_1 (MaxPooling (None, 36, 36, 16) 0

2D)

conv2d\_2 (Conv2D) (None, 34, 34, 32) 4640

flatten (Flatten) (None, 36992) 0

dropout\_1 (Dropout) (None, 36992) 0

dense (Dense) (None, 64) 2367552

dense\_1 (Dense) (None, 3) 195

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

**Graph**:

图表, 折线图, 散点图

描述已自动生成

**Best learned model:**

Epoch 15/15

13/13 [==============================] - 4s 289ms/step - loss: 0.3258 - accuracy: 0.8706 - val\_loss: 2.3864 - val\_accuracy: 0.5325

**merged\_model:**

With data augmentation:

Layer (type) Output Shape Param #

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

conv2d (Conv2D) (None, 148, 148, 8) 224

max\_pooling2d (MaxPooling2D (None, 74, 74, 8) 0

)

conv2d\_1 (Conv2D) (None, 72, 72, 16) 1168

max\_pooling2d\_1 (MaxPooling (None, 36, 36, 16) 0

2D)

conv2d\_2 (Conv2D) (None, 34, 34, 32) 4640

flatten (Flatten) (None, 36992) 0

dense (Dense) (None, 64) 2367552

dense\_1 (Dense) (None, 3) 195

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

**Graph**:

图表, 折线图, 箱线图

描述已自动生成

**Best learned model:**

Epoch 28/50

13/13 [==============================] - 5s 398ms/step - loss: 0.4547 - accuracy: 0.8256 - val\_loss: 1.0179 - val\_accuracy: 0.6650

**Play Game:**