## Shaquille Obomeghie Exercise 2.5

Part 1

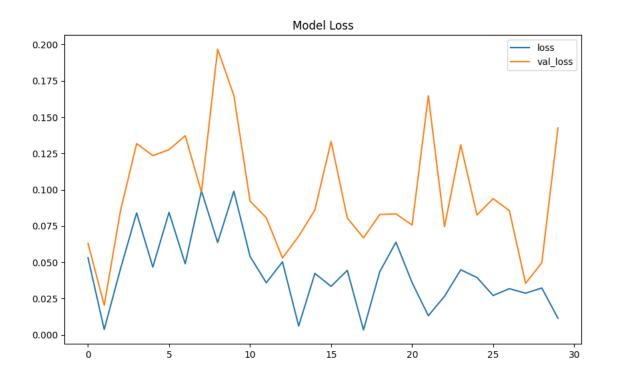
The model identified 2 numbers correctly which is bout 20%

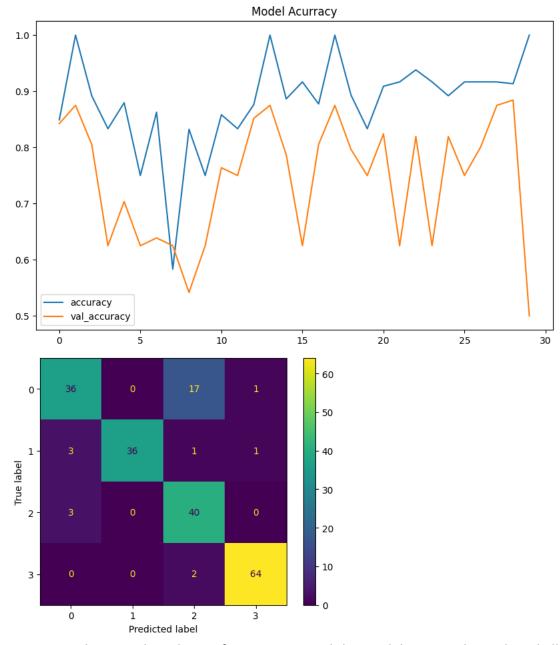
Number	Prediction
0	8
1	2
2	2
3	8
4	8
5	2
6	2
7	2
8	8
9	8

Part 2

I used 30 Epoch to get the result

Accuracy	1.0
Val_accuracy	0.5
Loss	0.011391870677471161
Val_Loss	0.1425381749868393





I ran a weather visual prediction for 8 images, and the model accurately predicted all 8.

## Propose the use of GANs in weather prediction

- Use of GAN in precipitation prediction.
- The use to predict extreme weather events.
- Fog prediction for airlines/airports.

## **Example of use cases**

- "Precipitation nowcasting using transformer-based generative models and transfer learning for improved disaster preparedness" https://www.sciencedirect.com/science/article/pii/S1569843224003169
- "Prediction of summer daytime land surface temperature in urban environments based on machine learning"
  <a href="https://www.sciencedirect.com/science/article/abs/pii/S2210670723003438">https://www.sciencedirect.com/science/article/abs/pii/S2210670723003438</a>