## **CPS 584**

## HomeWork 3

My Experience in H.W 2 VS Experience in H.W 3

In homework 2, I find the loops were confusing and the program was lengthy it needs to be understood first on paper and calculate everything then we need to start coding.

In Homework 3 I found that it's very easy the Help session was very helpful, but it was still very hard for me because I don't know the optimizers, losses, and activation function. I need to do trial and error for that and I have also studied various of the optimizer losses and activation function.

In homework 3 I can say that i know how to use the Learning rate very well and get good accuracy and less loss to train the model. In short, I can say that I discovered the basics of Keras and learned about different optimizer losses and activation functions.

## Activation Functions Used Sigmoid and Relu

A sigmoid function will transform an input value into an output between 0 and 1. Any input larger than 1 will be transformed to 1, and inputs smaller than 0 will be transformed to 0.

In Relu function gives the output directly if the input is positive and outputs 0 if negative.

## Optimizer used Adam and SGD

Adam optimizer is a stochastic gradient descent method that is based on an adaptive estimation of first-order and second-order moments.

SGD Optimizer class that implements the stochastic gradient descent optimizer with a learning rate and momentum.

Thanks and Regards Abhijeet Gupta