Lecture 4 additional credit

Original Model

|  |  |
| --- | --- |
| Learning Rate | 0.001 |
| Batch Size | 32 |
| Epoch | 10 |
| Recall | 72.8% |
| Accuracy | 72.8% |

Add this two layers in the code “my\_net/classify.py”respectively.

Add BN layer for all conv layer

|  |  |
| --- | --- |
| Learning Rate | 0.001 |
| Batch Size | 32 |
| Recall | 71.5% |
| Accuracy | 71.5% |

Explain the BN layer and briefly describe it’s role:

Add Dropout for all fc layer

|  |  |
| --- | --- |
| Learning Rate | 0.001 |
| Batch Size | 32 |
| Recall | 73.2% |
| Accuracy | 73.2% |

Explain the Dropout layer and briefly describe it’s role:

Batch size and Learning rate are hyperparameters. Find the position of these two parameters in the code provided in the last class. The recall and accuracy is calculate by validation dataset

Learning rate

Learning rate = 0.0005

|  |  |
| --- | --- |
| Learning Rate | 0.0005 |
| Batch Size | 32 |
| Recall | 73.8% |
| Accuracy | 73.8% |

Learning rate = 0.002

|  |  |
| --- | --- |
| Learning Rate | 0.002 |
| Batch Size | 32 |
| Recall | 72.6% |
| Accuracy | 72.6% |

Explain learning rate and describe its impact on the model:

Batch size

Batch size = 6

|  |  |
| --- | --- |
| Learning Rate | 0.001 |
| Batch Size | 6 |
| Recall | 73.9% |
| Accuracy | 73.9% |

Batch size = 60

|  |  |
| --- | --- |
| Learning Rate | 0.001 |
| Batch Size | 60 |
| Recall | 72.8% |
| Accuracy | 72.8% |

Explain batch size and describe its impact on the model: