TRY 1 CNN

With 2conv with (64 Filter)

With 1Dense with (64 Filter)

With 1 max pooling (3,3)

With 1 Dropout (0.25)

```
77/77 [=========] - 13s 174ms/step - loss: 0.5713 - accuracy: 0.8139 - val loss: 0.2777 - val accuracy: 0.9302 - lr: 2.5419e-04
Epoch 15/30
77/77 [===========] - 13s 175ms/step - loss: 0.5557 - accuracy: 0.8152 - val_loss: 0.2886 - val_accuracy: 0.9341 - lr: 2.2877e-04
Epoch 16/30
77/77 [=========] - 13s 174ms/step - loss: 0.5542 - accuracy: 0.8221 - val loss: 0.2982 - val accuracy: 0.9244 - lr: 2.0589e-04
Epoch 17/30
77/77 [========] - 13s 170ms/step - loss: 0.5293 - accuracy: 0.8316 - val loss: 0.2646 - val accuracy: 0.9380 - lr: 1.8530e-04
Epoch 18/30
77/77 [==========] - 13s 171ms/step - loss: 0.5174 - accuracy: 0.8270 - val_loss: 0.2589 - val_accuracy: 0.9341 - lr: 1.6677e-04
Epoch 19/30
77/77 [===========] - 13s 173ms/step - loss: 0.5158 - accuracy: 0.8211 - val_loss: 0.2798 - val_accuracy: 0.9244 - lr: 1.5009e-04
Epoch 20/30
77/77 [==========] - 13s 171ms/step - loss: 0.5035 - accuracy: 0.8381 - val loss: 0.2521 - val accuracy: 0.9380 - lr: 1.3509e-04
Epoch 21/30
77/77 [=========] - 13s 170ms/step - loss: 0.5030 - accuracy: 0.8427 - val loss: 0.2495 - val accuracy: 0.9438 - lr: 1.2158e-04
Epoch 22/30
77/77 [=========] - 13s 172ms/step - loss: 0.4822 - accuracy: 0.8421 - val loss: 0.2567 - val accuracy: 0.9360 - lr: 1.0942e-04
Epoch 23/30
77/77 [=========] - 13s 174ms/step - loss: 0.5260 - accuracy: 0.8381 - val loss: 0.2490 - val accuracy: 0.9419 - lr: 9.8477e-05
Epoch 24/30
77/77 [=========] - 14s 176ms/step - loss: 0.4761 - accuracy: 0.8460 - val loss: 0.2529 - val accuracy: 0.9419 - lr: 8.8629e-05
Epoch 25/30
77/77 [=========] - 13s 172ms/step - loss: 0.5045 - accuracy: 0.8342 - val loss: 0.2500 - val accuracy: 0.9399 - lr: 7.9766e-05
Epoch 26/30
7//77 [==========] - 13s 171ms/step - loss: 0.4811 - accuracy: 0.8499 - val_loss: 0.2414 - val_accuracy: 0.9419 - lr: 7.1790e-05
Epoch 27/30
77/77 [=========] - 13s 169ms/step - loss: 0.4610 - accuracy: 0.8526 - val loss: 0.2463 - val accuracy: 0.9399 - lr: 6.4611e-05
Epoch 28/30
77/77 [=========] - 13s 172ms/step - loss: 0.4787 - accuracy: 0.8434 - val loss: 0.2429 - val accuracy: 0.9399 - lr: 5.8150e-05
Epoch 29/30
77/77 [==========] - 13s 170ms/step - loss: 0.4571 - accuracy: 0.8499 - val loss: 0.2391 - val accuracy: 0.9380 - lr: 5.2335e-05
Epoch 30/30
77/77 [==========] - 13s 170ms/step - loss: 0.4935 - accuracy: 0.8486 - val_loss: 0.2416 - val_accuracy: 0.9438 - lr: 4.7101e-05
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Λ 4

TRY 2 CNN

5 conv 2d

3max pooling strid (2,2)

5 Dropout (0.25)

3 dense

```
Epoch 16/30
   77/77 [=========] - 93s 1s/step - loss: 0.1320 - accuracy: 0.9620 - val loss: 0.0583 - val accuracy: 0.9845 - lr: 2.0589e-04
   Epoch 18/30
   77/77 [=========] - 91s 1s/step - loss: 0.1030 - accuracy: 0.9666 - val_loss: 0.0615 - val_accuracy: 0.9864 - lr: 1.6677e-04
   Epoch 19/30
   77/77 [=========] - 93s 1s/step - loss: 0.0744 - accuracy: 0.9751 - val loss: 0.0613 - val accuracy: 0.9864 - lr: 1.5009e-04
   77/77 [===========] - 93s 1s/step - loss: 0.0825 - accuracy: 0.9705 - val loss: 0.0506 - val accuracy: 0.9864 - lr: 1.3509e-04
   Epoch 21/30
   77/77 [=========] - 91s 1s/step - loss: 0.0902 - accuracy: 0.9738 - val loss: 0.0472 - val accuracy: 0.9845 - lr: 1.2158e-04
   77/77 [=========] - 93s 1s/step - loss: 0.0877 - accuracy: 0.9738 - val loss: 0.0504 - val accuracy: 0.9884 - lr: 1.0942e-04
   Epoch 23/30
   77/77 [==========] - 93s 1s/step - loss: 0.0830 - accuracy: 0.9758 - val loss: 0.0429 - val accuracy: 0.9884 - lr: 9.8477e-05
   77/77 [===========] - 91s 1s/step - loss: 0.0694 - accuracy: 0.9803 - val loss: 0.0544 - val accuracy: 0.9884 - lr: 8.8629e-05
   Epoch 25/30
   77/77 [------] - 93s 1s/step - loss: 0.0786 - accuracy: 0.9758 - val loss: 0.0536 - val accuracy: 0.9864 - lr: 7.9766e-05
   77/77 [==========] - 93s 1s/step - loss: 0.0574 - accuracy: 0.9836 - val loss: 0.0511 - val accuracy: 0.9903 - lr: 7.1790e-05
   Epoch 27/30
   77/77 [=========] - 93s 1s/step - loss: 0.0747 - accuracy: 0.9790 - val loss: 0.0521 - val accuracy: 0.9864 - lr: 6.4611e-05
   77/77 [==========] - 93s 1s/step - loss: 0.0670 - accuracy: 0.9810 - val loss: 0.0511 - val accuracy: 0.9903 - lr: 5.8150e-05
   77/77 [==========] - 93s 1s/step - loss: 0.0631 - accuracy: 0.9803 - val loss: 0.0512 - val accuracy: 0.9903 - lr: 5.2335e-05
   77/77 [===========] - 91s 1s/step - loss: 0.0827 - accuracy: 0.9744 - val loss: 0.0550 - val accuracy: 0.9845 - lr: 4.7101e-05
```