

Full names	Students id	Contributions
Feng Zhang	002253103	Model test ,optimization,report
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For each of the sections below, report the obtained accuracy on your test.

### LeNet 5

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	0.5
Number of epochs	20
Validation accuracy:	39.49%
Test accuracy:	41.980%

### SENet

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	0.5
Number of epochs	20
Validation accuracy:	81.550%
Test accuracy:	81.250%

### VGG

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	0.5
Number of epochs	20
VGG versions you tested	11,13,16,19

The VGG version that gave the best score	VGG11
Validation accuracy:	66.480%
Test accuracy:	65.670%

## ResNet

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	1
Number of epochs	4
ResNet versions you tested	18, 34, 50, 101, 152
The ResNet version that gave the best score	ResNet50
Validation accuracy:	31.980%
Test accuracy:	34.410%

## GoogLeNet

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	1
Number of epochs	10
Validation accuracy:	9.810%
Test accuracy:	10.0%

## Dual Path Networks

*Report the learning rates and epochs you used in your experiment and which one that gave you the best accuracy:*

Learning rates you tried:	1
Number of epochs	2
Validation accuracy:	9.990%

Test accuracy:	10.880%
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**Explanation of the obtained results**

*Give a brief explanation of the obtained.*

The validation accuracy of the Dual Path Networks algorithm is highest in of all algorithms, which is 84.350%. Meanwhile, its test accuracy is also highest, it is 83.660%. The validation accuracy of the LeNet 5 algorithm is lowest, it presents 43.030%,. In addition, its test accuracy is also bottommost that is 45.120%. However, when we modified the values of lr and epoch. The accuracies became lower and lower.