|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model | Test Accuracy\* | Validation Accuracy | Parameter  (Million) | Layer | Size | Calculation Time\*\* |
| AlexNet\*\*\*\* | 91% | 88% | 61 | 8 | 202 MB | 1.14 sec |
| Squeeznet | 91% | 90% | 1.24 | 18 | 2.6 MB | 1.22 sec |
| GoogLeNet |  |  | 7 | 22 |  |  |
| ResNet\*\*\* | 93% | 92% | 11.7 | 18 | 39.7 MB | 1.72 sec |
| VGG\*\*\*\*\* | 93% | 92% | 128 | 16 | 476 MB | 13.25 sec |
| ResNet + SVM | 95% | 97% | - | - | - | 1.04 sec |

\*Randomly select 500 objects as test data set

\*\*Training on GeForce GTX 1660 SUPER

\*\*\*Resnet with adam Algorithm

\*\*\*\*Alexnet add Batch normalization after convolution layer

\*\*\*\*\*VGG: freeze first 6 layer, add He weight initialization and weight decay regularization.

\*\*\*\*\*\*ResNet: Pooling 5 as image feature and using svm as classifier