|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Train-accuracy | Train-Loss | Validation-Accuracy | Validation-Loss |
|  |  |  |  |  |
| Baseline Model | 0.4729 | 1.4734 | 0.4679 | 1.4891 |
| Initialiser as random and zero | 0.4777 | 1.4586 | 0.4806 | 1.4653 |
| Weights as ones | 0.100 | 14.5063 | 0.100 | 14.5063 |
| Constant values | 0.0971 | 2.3027 | 0.100 | 2.3026 |
| Random Normal | 0.4760 | 1.4600 | 0.4773 | 1.4583 |
| Random Uniform | 0.4741 | 1.4653 | 0.4637 | 1.5043 |
| Truncated Normal | 0.4797 | 1.4520 | 0.4838 | 1.4516 |
| Variance Scaling | 0.4791 | 1.4554 | 0.4827 | 1.4596 |
| Orthogonal | 0.4681 | 1.4881 | 0.4449 | 1.5375 |
| Identity | 0.2469 | 1.9481 | 0.2471 | 1.9408 |
| Lecun\_uniform | 0.4816 | 1.4480 | 0.4646 | 1.4871 |
| Glorot\_normal | 0.4761 | 1.4659 | 0.4633 | 1.5064 |
| Glorot\_uniform | 0.4791 | 1.4555 | 0.4653 | 1.4953 |
| He\_uniform | 0.4743 | 1.4707 | 0.4674 | 1.4898 |
| Lecun\_normal | 0.4836 | 1.4428 | 0.4688 | 1.4875 |
| He\_uniform | 0.4737 | 1.4688 | 0.4710 | 1.4752 |

* Out of these 18 methods Truncated model method out performs other methods as it has the minimum loss on validation set as well as on training set and the accuracy is also the highest among others on Validation set .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Train-accuracy | Train-Loss | Validation-accuracy | Validation-Loss |
| Cifar10 | 0.4797 | 1.4520 | 0.4838 | 1.4516 |
| Mnist | 0.9895 | 0.0316 | 0.9703 | 0.1016 |
| Cifar100 | 0.2214 | 3.1953 | 0.2146 | 3.2828 |
| Fashion\_mnist | 0.8972 | 0.2763 | 0.8758 | 0.3520 |

We conclude that the best accuracy comes on Mnist using Truncated normal.