# Lab 2

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J042

CIFAR10 Dataset

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| --- | --- | --- | --- | --- |
| Name | Train\_acc | Train\_loss | Val\_acc | Val\_loss |
| Baseline Model | 0.4769 | 1.4614 | 0.4639 | 1.5006 |
| Const | 0.0995 | 2.3027 | 0.1 | 2.3026 |
| Random Uniform | 0.4770 | 1.4558 | 0.4447 | 1.5583 |
| Ones | 0.1000 | 14.5063 | 0.1000 | 14.5063 |
| Random Normal | 0.4797 | 1.4521 | 0.4484 | 1.5301 |
| Trunc Normal | 0.4787 | 1.4593 | 0.4721 | 1.4773 |
| Variance Scaling | 0.4800 | 1.4584 | 0.4795 | 1.4531 |
| Orthogonal | 0.4593 | 1.5139 | 0.4466 | 1.5536 |
| Identity | 0.3226 | 1.8526 | 0.3269 | 1.8425 |
| LeCun Normal | 0.4731 | 1.4716 | 0.4678 | 1.4844 |
| **LeCun Uniform** | **0.4776** | **1.4537** | ***0.4803*** | **1.4583** |
| Glorot Normal | 0.4779 | 1.4583 | 0.4733 | 1.4782 |
| Glorot Uniform | 0.4757 | 1.4631 | 0.4774 | 1.4550 |
| He Normal | 0.4750 | 1.4708 | 0.4664 | 1.4911 |
| He Uniform | 0.4717 | 1.4715 | 0.4587 | 1.5078 |

Of the 14 models, **LeCun Uniform** performs the best as it has the highest accuracy on validation set.