Experiment 2

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BTech Data Science 3rd Year Deep Learning Lab(J2)

1. Model with no bias and kernel

acc: 0.4757 - val_loss: 1.4538 - val_acc: 0.4836

2. Model with Initializer as random uniform and zero

acc: 0.4778 - val_loss: 1.4532 - val_acc: 0.4730

3. Model with weights as ones

acc: 0.1000 - val_loss: 14.5063 - val_acc: 0.1000

4. Model initialized with constant values

acc: 0.0972 - val_loss: 2.3026 - val_acc: 0.1000

5. RandomNormal

acc: 0.4755 - val_loss: 1.5139 - val_acc: 0.4596

6. RandomUniform

acc: 0.4731 - val_loss: 1.4724 - val_acc: 0.4716

7. TruncatedNormal

acc: 0.4783 - val_loss: 1.4608 - val_acc: 0.4742

8. VarianceScaling

acc: 0.4823 - val_loss: 1.4784 - val_acc: 0.4768

9. Orthogonal

acc: 0.4712 - val_loss: 1.5070 - val_acc: 0.4588

10. Identity

acc: 0.2515 - val_loss: 1.9556 - val_acc: 0.2495

11. lecun_uniform

acc: 0.4746 - val_loss: 1.4608 - val_acc: 0.4791

12. glorot_normal

acc: 0.4791 - val_loss: 1.4557 - val_acc: 0.4781

13. glorot_uniform

acc: 0.4777 - val_loss: 1.4516 - val_acc: 0.4884

14. he_normal

acc: 0.4774 - val_loss: 1.4554 - val_acc: 0.4820

15. lecun_normal

acc: 0.4836 - val_loss: 1.4910 - val_acc: 0.4593

16. he_uniform

acc: 0.4754 - val_loss: 1.4812 - val_acc: 0.4697

Conclusion :

After doing this experiment we see that the best optimiser for this dataset is **glorot_uniform** and the worst ones being **Model with weights as ones** and **Model with weights as ones.**