# **Hyperparameter Tuning Report**

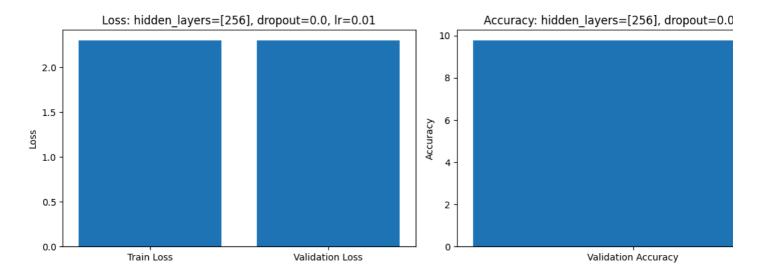
	hidden_layers	dropout_prob	learning_rate	training_loss	val_loss	val_accuracy
0	[256]	0.0	0.010	2.302549	2.302674	9.783333
1	[256]	0.0	0.001	0.401500	0.448914	85.041667
2	[256]	0.2	0.010	2.302500	2.302821	9.775000
3	[256]	0.2	0.001	0.522693	0.519057	82.016667
4	[256]	0.5	0.010	2.302601	2.302730	9.775000
5	[256]	0.5	0.001	0.867027	0.614027	77.466667
6	[256, 128]	0.0	0.010	NaN	NaN	10.100000
7	[256, 128]	0.0	0.001	0.293584	0.372709	86.625000
8	[256, 128]	0.2	0.010	2.302639	2.302642	9.866667
9	[256, 128]	0.2	0.001	0.418299	0.389151	85.783333
10	[256, 128]	0.5	0.010	NaN	NaN	10.100000
11	[256, 128]	0.5	0.001	0.651670	0.518792	83.391667
12	[512, 256, 128]	0.0	0.010	NaN	NaN	10.100000
13	[512, 256, 128]	0.0	0.001	0.252944	0.345249	87.950000
14	[512, 256, 128]	0.2	0.010	NaN	NaN	10.100000
15	[512, 256, 128]	0.2	0.001	0.413397	0.372259	85.633333
16	[512, 256, 128]	0.5	0.010	NaN	NaN	10.100000
17	[512, 256, 128]	0.5	0.001	0.616918	0.479908	83.450000

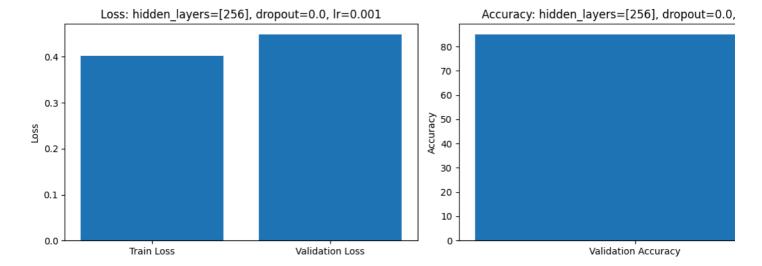
# **Best Experiment**

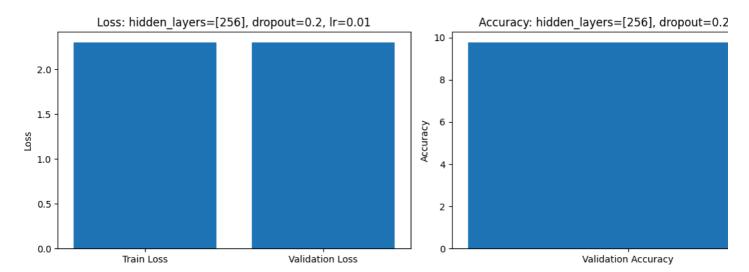
Hidden Layers: [512, 256, 128]

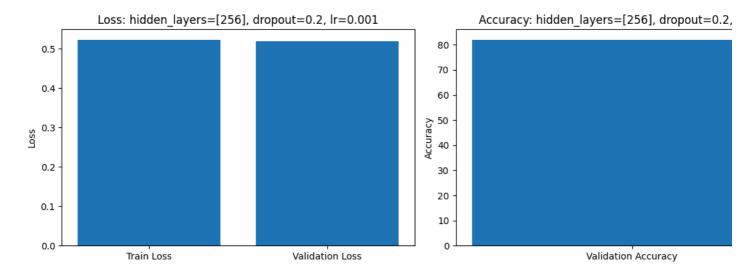
Dropout Probability: 0.0 Learning Rate: 0.001 Training Loss: 0.2529 Validation Loss: 0.3452 Validation Accuracy: 87.95%

### **Experiment 1**

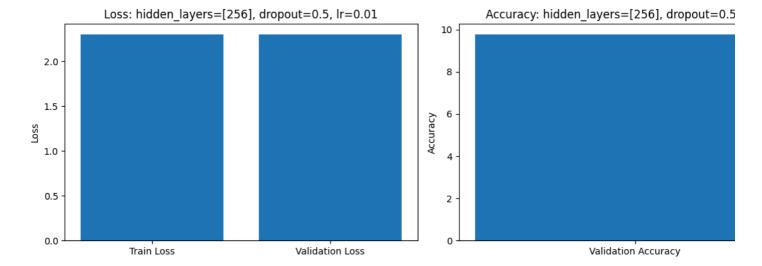


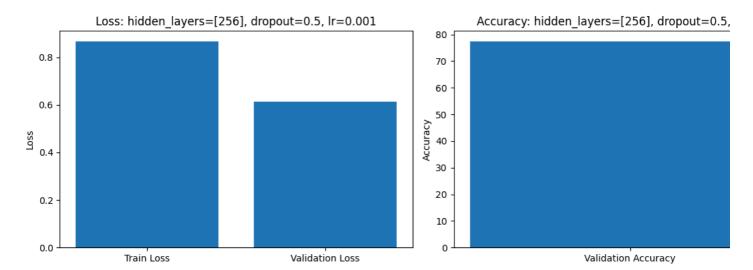


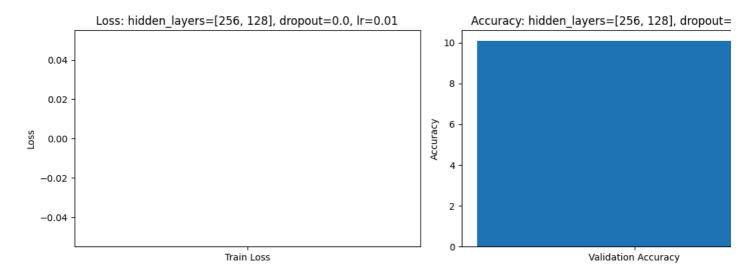




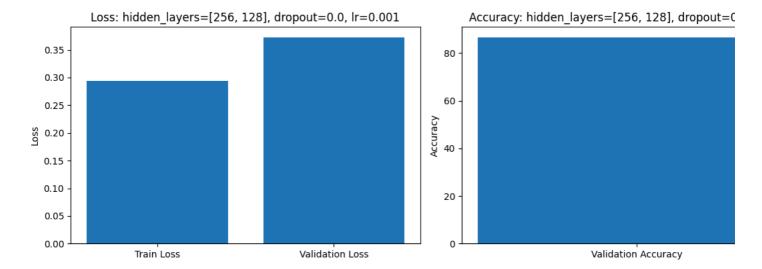
**Experiment 5** 

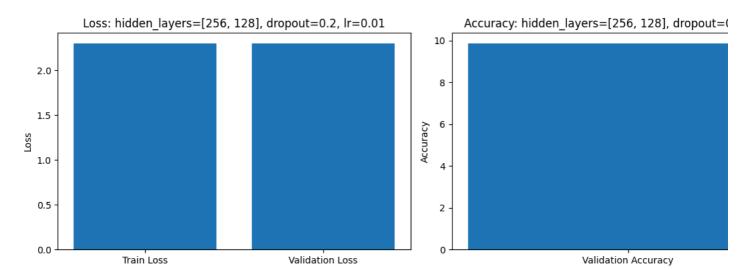


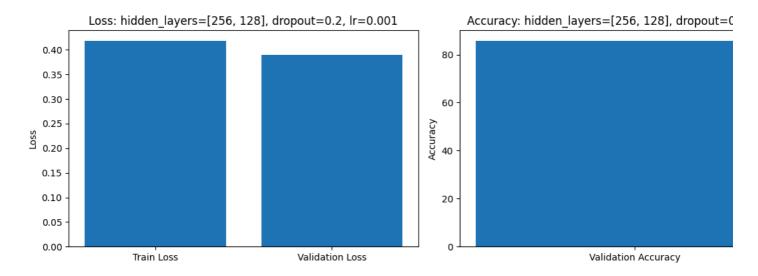




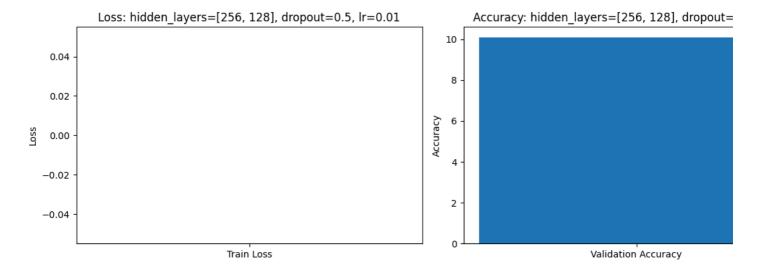
**Experiment 8** 

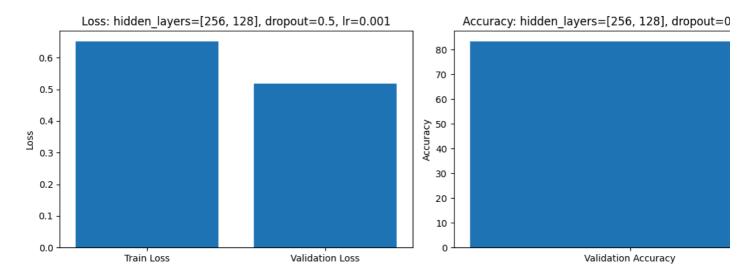


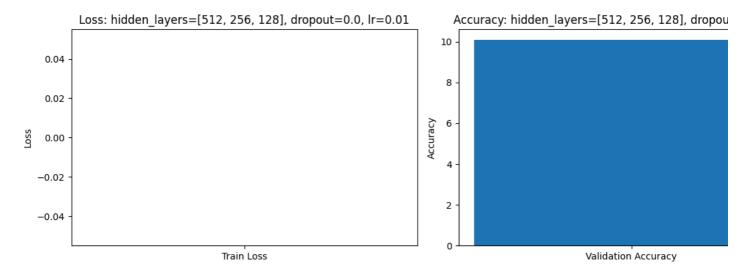




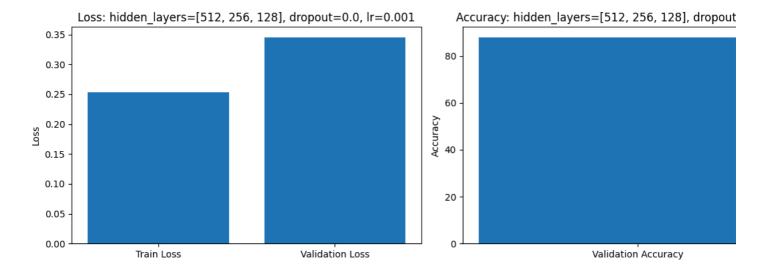
**Experiment 11** 

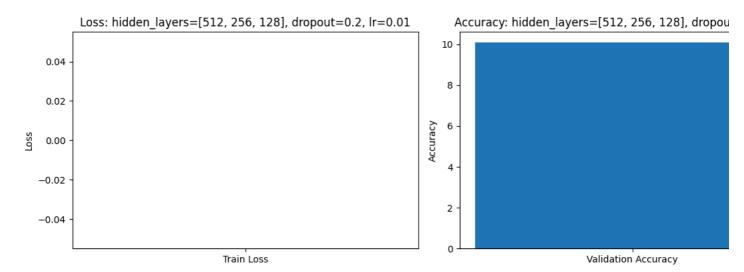


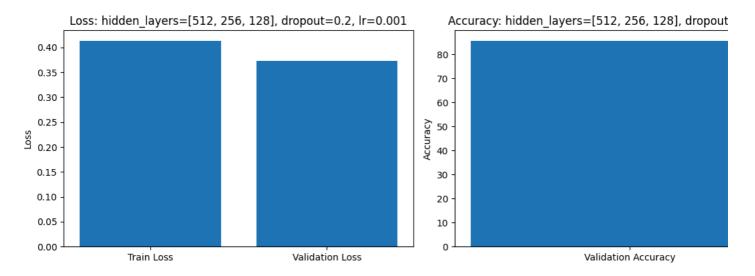




**Experiment 14** 







**Experiment 17** 

