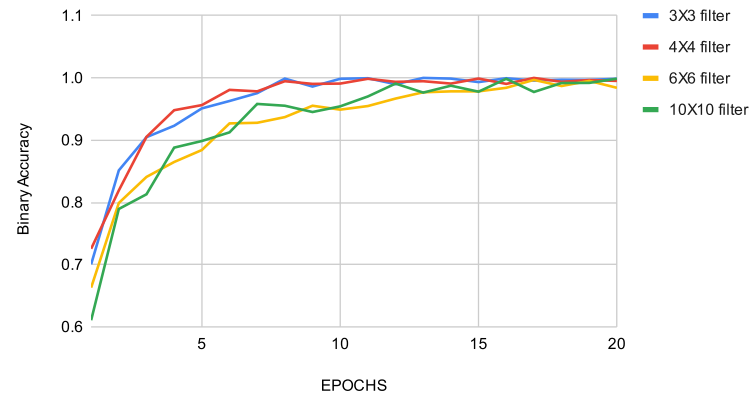


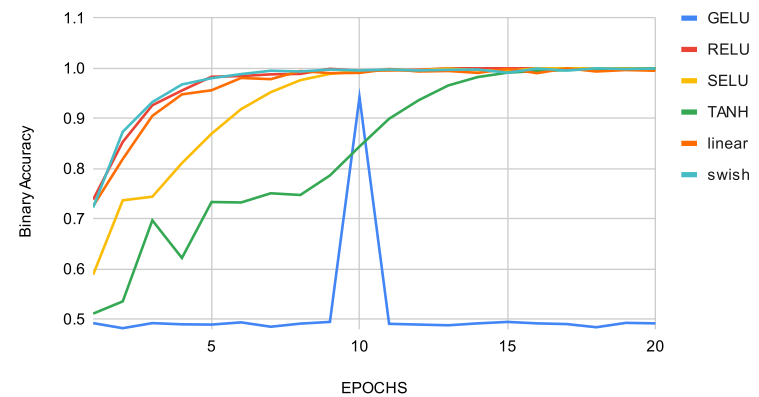
EPOCHS	3X3 filter	4X4 filter	6X6 filter	10X10 filter
1	0.7005	0.7255	0.663	0.6106
2	0.8514	0.8192	0.799	0.7894
3	0.9048	0.9053	0.8409	0.813
4	0.9231	0.9481	0.8649	0.888
5	0.951	0.9563	0.8841	0.8986
6	0.9629	0.9808	0.9269	0.9125
7	0.9755	0.9784	0.9279	0.9582
8	0.9989	0.9947	0.937	0.9553
9	0.9861	0.9904	0.9553	0.9452
10	0.9986	0.9909	0.949	0.9543
11	0.9995	0.9986	0.9548	0.9702
12	0.9899	0.9937	0.9668	0.9909
13	1	0.9947	0.9769	0.9764
14	0.9989	0.9909	0.9784	0.9875
15	0.9933	0.999	0.9784	0.9779
16	0.9995	0.9904	0.9841	0.9986
17	0.9957	1	0.9968	0.9774
18	0.9971	0.9937	0.987	0.9918
19	0.9968	0.9966	0.9952	0.992
20	0.9986	0.9952	0.9841	0.9987

3X3 filter, 4X4 filter, 6X6 filter and 10X10 filter



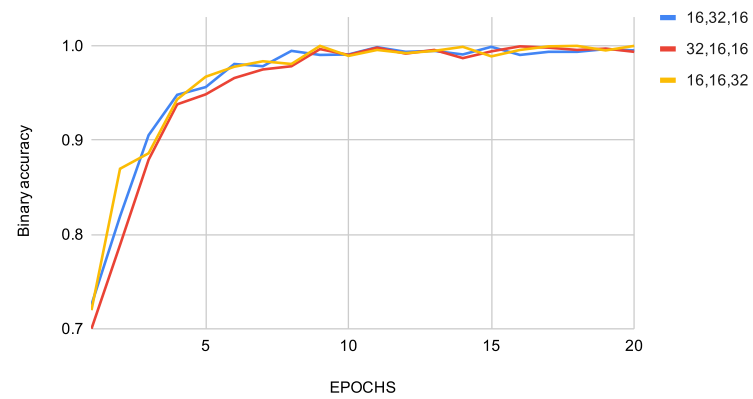
EPOCHS	GELU	RELU	SELU	TANH	linear	swish
1	0.4923	0.7385	0.5889	0.5112	0.7255	0.7228
2	0.4822	0.8534	0.737	0.5356	0.8192	0.8736
3	0.4923	0.9264	0.7442	0.6971	0.9053	0.9327
4	0.4899	0.9558	0.8111	0.6221	0.9481	0.9678
5	0.4894	0.9832	0.8697	0.7336	0.9563	0.9803
6	0.4938	0.9846	0.9187	0.7327	0.9808	0.9885
7	0.4851	0.988	0.9524	0.751	0.9784	0.9952
8	0.4913	0.9889	0.9764	0.7476	0.9947	0.9937
9	0.4947	0.999	0.9889	0.7865	0.9904	0.9976
10	0.9423	0.9947	0.9947	0.8442	0.9909	0.9957
11	0.4909	0.9957	0.9966	0.8995	0.9986	0.9976
12	0.4894	0.9971	0.9962	0.9365	0.9937	0.9957
13	0.488	1	0.9995	0.9659	0.9947	0.9971
14	0.4918	1	0.9962	0.9827	0.9909	0.9976
15	0.4947	1	0.9952	0.9913	0.999	0.9913
16	0.4918	1	1	0.9947	0.9904	0.9995
17	0.4904	1	1	0.9966	1	0.9957
18	0.4841	1	1	0.9981	0.9937	1
19	0.4928	1	1	0.9986	0.9966	0.9986
20	0.4918	1	1	0.9995	0.9952	0.9995

GELU, RELU, SELU, TANH, linear, swish activation functions



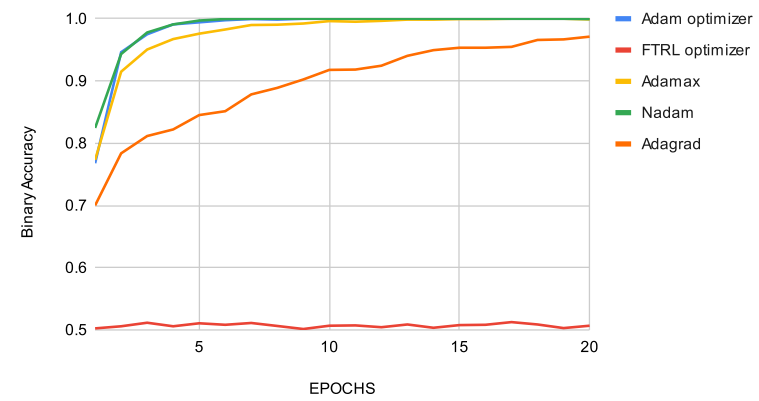
EPOCHS	16,32,16	32,16,16	16,16,32
1	0.7255	0.7	0.7197
2	0.8192	0.7889	0.8697
3	0.9053	0.8793	0.8861
4	0.9481	0.938	0.9433
5	0.9563	0.9486	0.9673
6	0.9808	0.9659	0.9779
7	0.9784	0.975	0.9837
8	0.9947	0.9784	0.9808
9	0.9904	0.9966	1
10	0.9909	0.9904	0.9894
11	0.9986	0.9981	0.9957
12	0.9937	0.9918	0.9923
13	0.9947	0.9957	0.9947
14	0.9909	0.987	0.999
15	0.999	0.9942	0.9889
16	0.9904	0.9995	0.9957
17	0.9937	0.9981	0.9995
18	0.9937	0.9957	1
19	0.9966	0.9971	0.9952
20	0.9952	0.9937	1

(16,32,16), (32,16,16) and (16,16,32) filter layer patterns



EPOCHS	Adam optimizer	FTRL optimizer	Adamax	Nadam	Adagrad
1	0.7678	0.5024	0.7731	0.8245	0.7
2	0.9462	0.5058	0.9149	0.9433	0.7837
3	0.975	0.5115	0.9505	0.9779	0.8115
4	0.9909	0.5058	0.9673	0.9909	0.8221
5	0.9942	0.5106	0.976	0.9971	0.8452
6	0.9976	0.5082	0.9827	0.9995	0.8514
7	0.9995	0.5111	0.9899	1	0.8784
8	0.9986	0.5063	0.9904	1	0.8889
9	1	0.5014	0.9923	1	0.9024
10	1	0.5067	0.9962	1	0.9178
11	1	0.5072	0.9952	1	0.9183
12	1	0.5043	0.9966	1	0.9245
13	1	0.5087	0.9986	1	0.9404
14	1	0.5034	0.9986	1	0.9495
15	1	0.5077	0.9995	1	0.9534
16	1	0.5082	0.9995	1	0.9534
17	1	0.5125	1	1	0.9548
18	1	0.5087	1	1	0.9659
19	1	0.5029	1	1	0.9668
20	1	0.5067	0.999	0.9995	0.9712

Adam , FTRL , Adamax , Nadam and Adagrad optimizers



	train	validation	test
MRI distribution f	2100	600	300

MRI distribution for CNN prodcedures

