PROJECT 3

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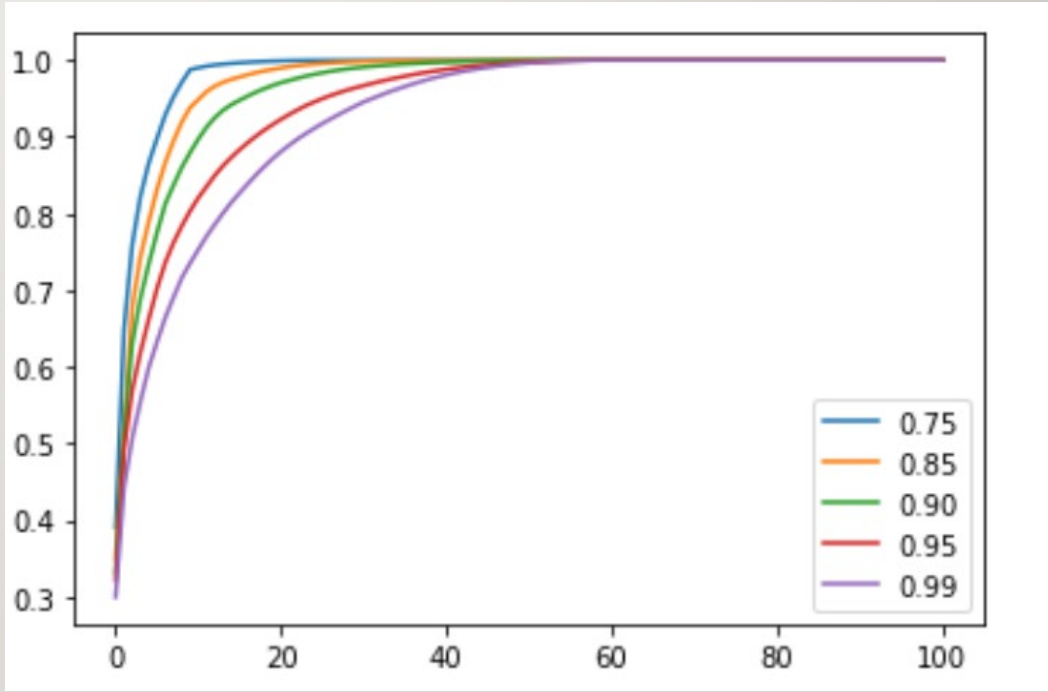
PROBLEM 1

- PCA function
- Lambda increase, number of eigenvalue included increase
- Lambda increase, include more recent data



PROBLEM 2

- Near_PSD vs Higham 2002
- Higham2002 with Higher accurate and more running time
- If running time not important, Higham's method better

Name	Norm	Time
Near_PSD	0.627523	0.114829
Higham2002_psd	0.089648	3.136185

PROBLEM 3

- Full vs (100%, 75%, 50%)
- Percentage decrease, running time decrease, less accuracy

	Matrix	Simulation	Norm	Runtimes
0	PEARSON	Full	0.000188	0.178729
1	EWMA_COR_PEARSON_STD	Full	0.000182	0.147698
2	EWMA	Full	0.000178	0.162535
3	PEARSON_COR_EWMA_STD	Full	0.000184	0.144133
4	PEARSON	PCA=1	0.016376	0.081993
5	EWMA_COR_PEARSON_STD	PCA=1	0.017701	0.087832
6	EWMA	PCA=1	0.017424	0.156085
7	PEARSON_COR_EWMA_STD	PCA=1	0.016366	0.117849
8	PEARSON	PCA=0.75	0.016449	0.026298
9	EWMA_COR_PEARSON_STD	PCA=0.75	0.017758	0.028116
10	EWMA	PCA=0.75	0.017480	0.030046
11	PEARSON_COR_EWMA_STD	PCA=0.75	0.016437	0.027812
12	PEARSON	PCA=0.5	0.016304	0.014241
13	EWMA_COR_PEARSON_STD	PCA=0.5	0.017637	0.010069
14	EWMA	PCA=0.5	0.017371	0.015150
15	PEARSON_COR_EWMA_STD	PCA=0.5	0.016307	0.016954