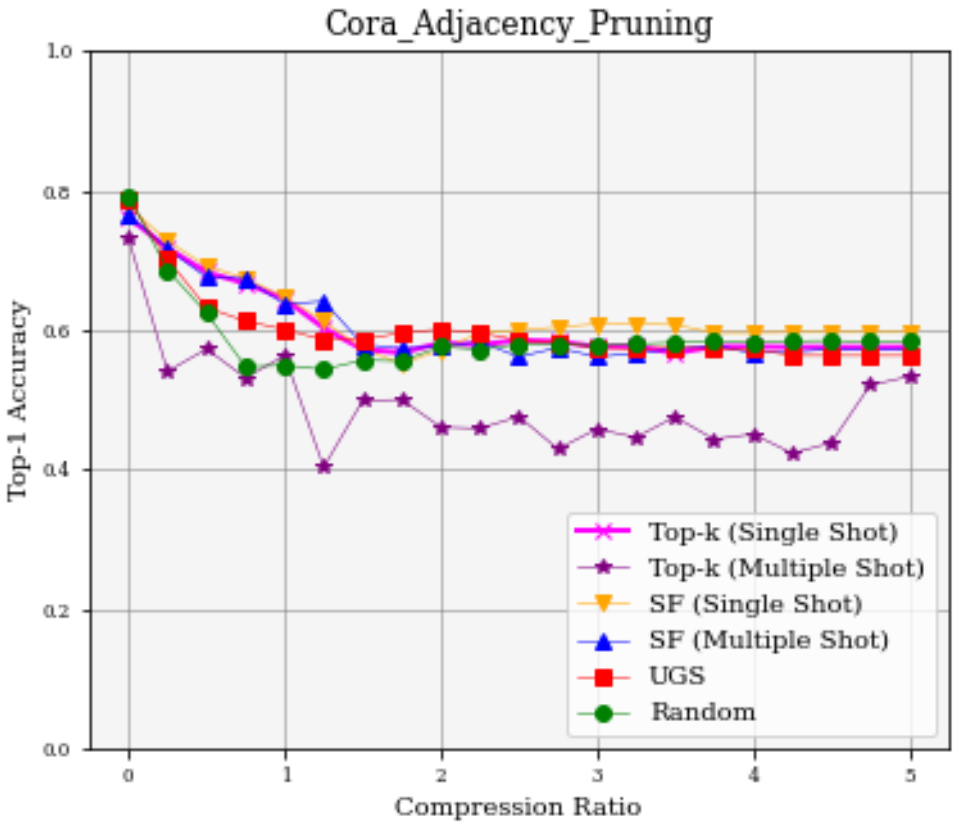
GNN Experiments-

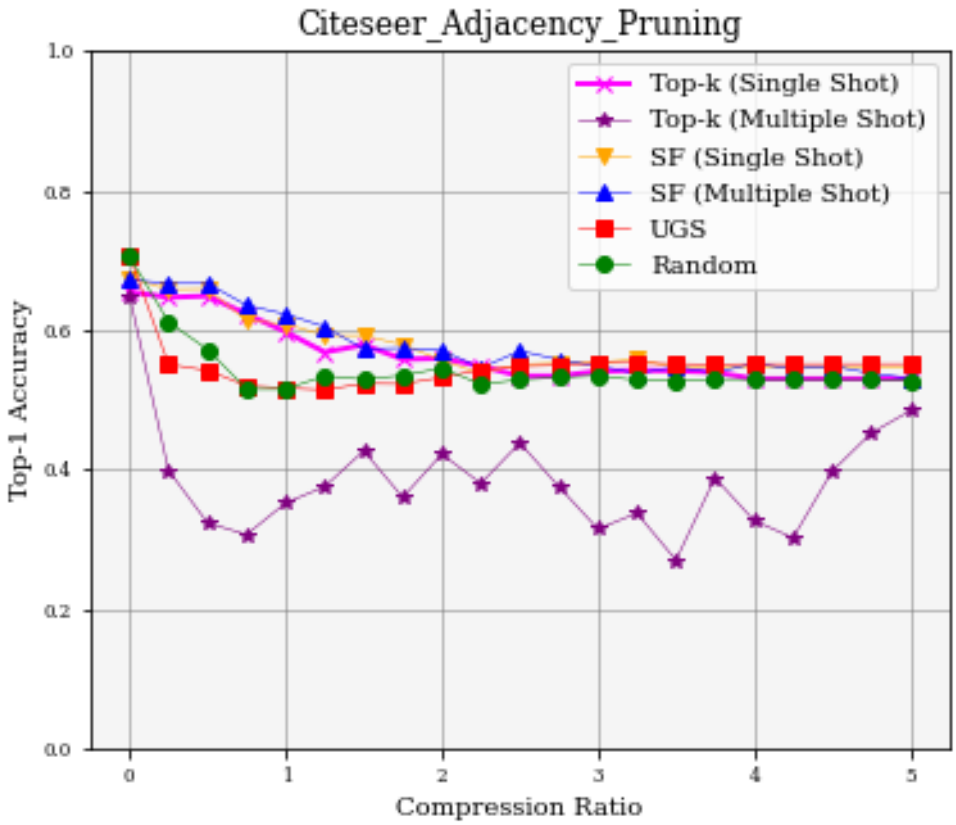
1. Pruning on Adjacency Matrix

	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1) (Singleshot)	**DONE**	**DONE**		
Top-k (k=1) (Multishot Levels- 3)	**DONE**	**DONE**		
Synflow (Single)	**DONE**	**DONE**		
Synflow (Multiple Levels- 3)	**DONE**	**DONE**		
UGS	**DONE**	**DONE**		
Random	**DONE**	**DONE**		

(1) Cora (Total 1 fig)



(2) Citeseer (Total 1 fig)



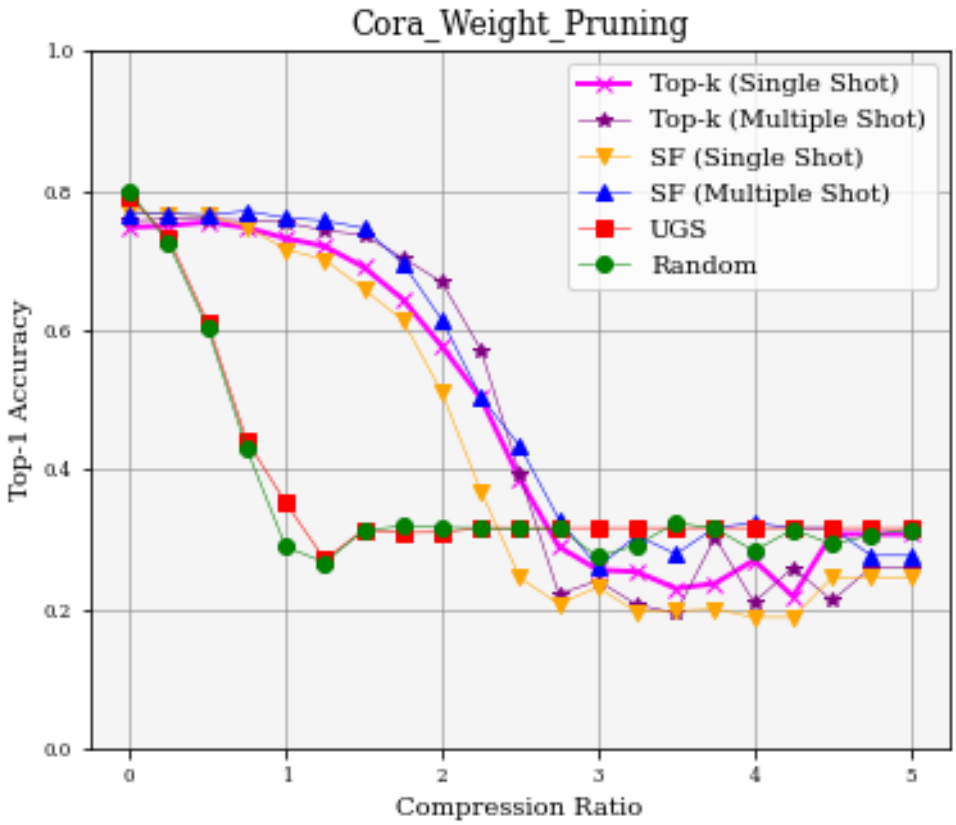
(3) Pubmed (Total 1 fig)

(4) Wiki (Total 1 fig)

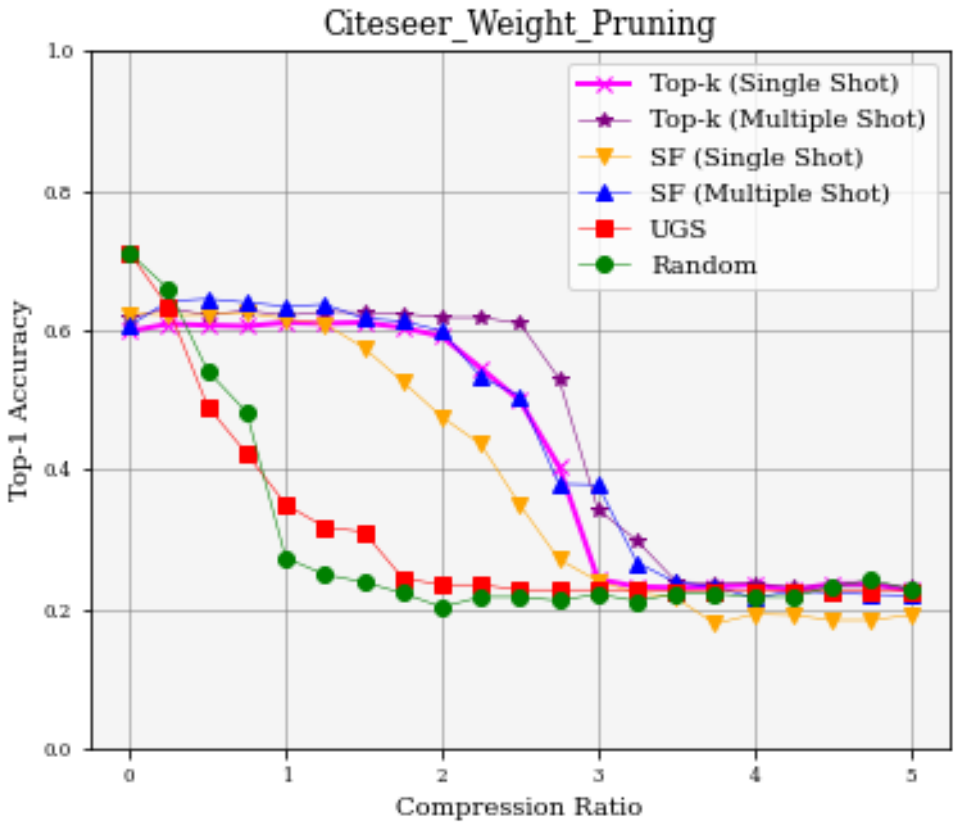
2. Pruning on Weights

	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1)(Singleshot)	**DONE**	**DONE**		
Top-k(k=1)((Multishot Levels- 3)	**DONE**	**DONE**		
Synflow (Singleshot)	**DONE**	**DONE**		
Synflow (Multishot Levels- 3)	**DONE**	**DONE**		
UGS	**DONE**	**DONE**		
Random	**DONE**	**DONE**		

(1) Cora (Total 1 fig)



(2)Citeseer (Total 1 fig)



(1) Pubmed (Total 1 fig)

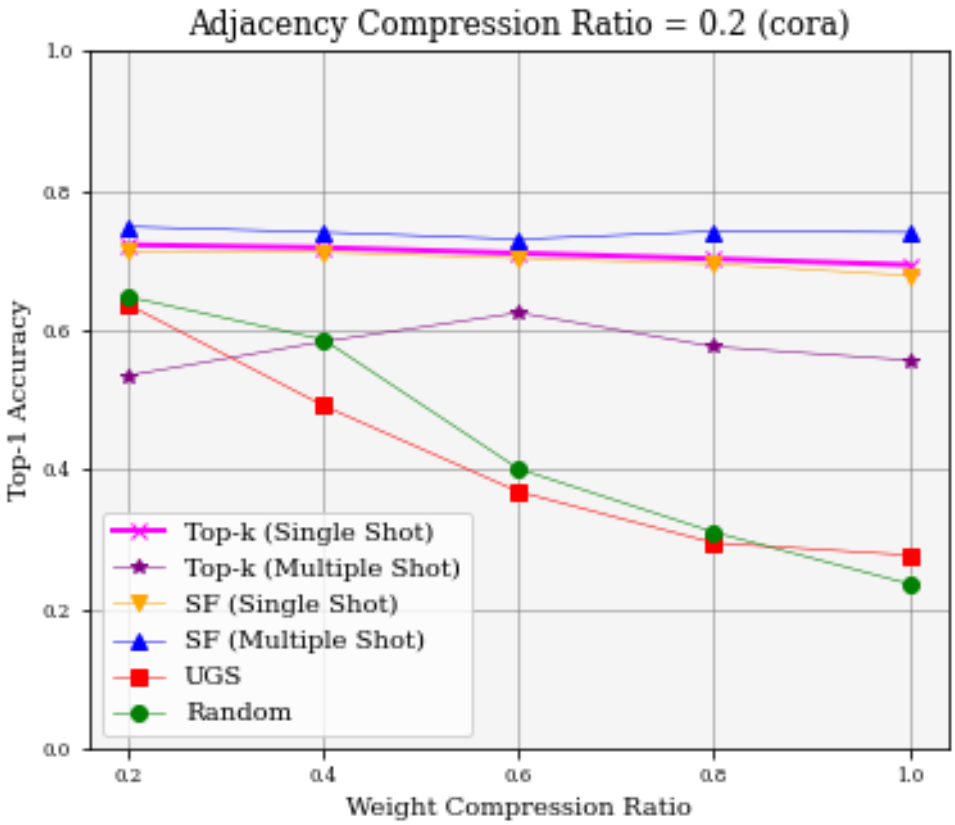
(2) Wiki (Total 1 fig)

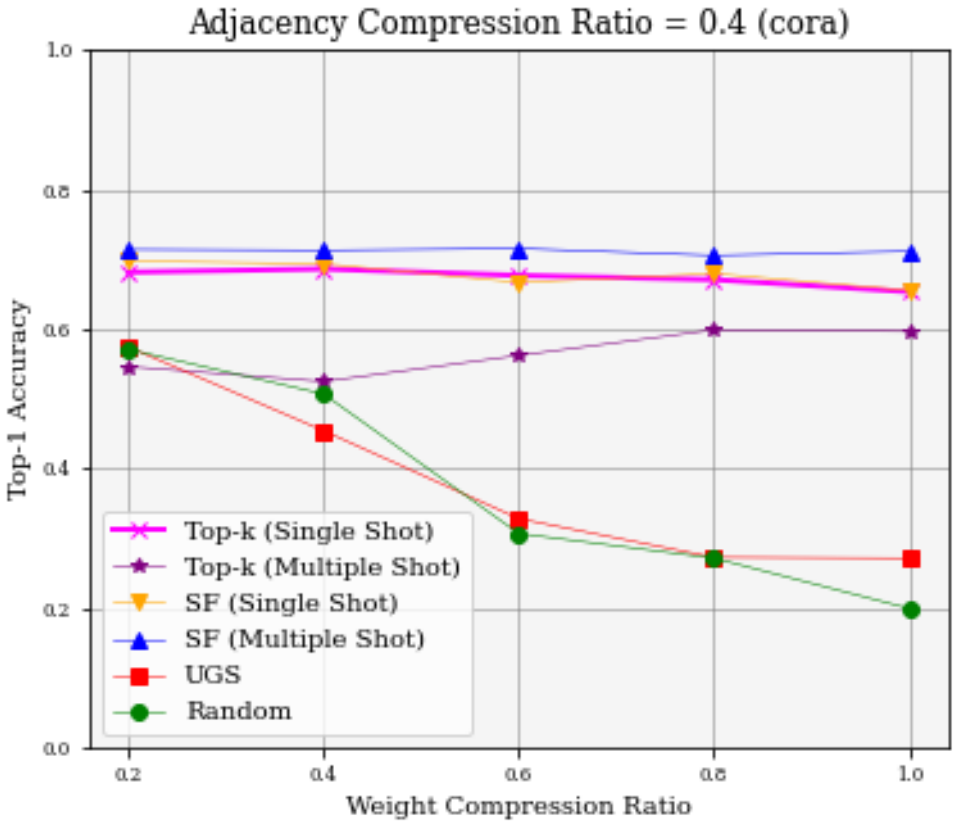
3. Adj-Weight Separate Compression

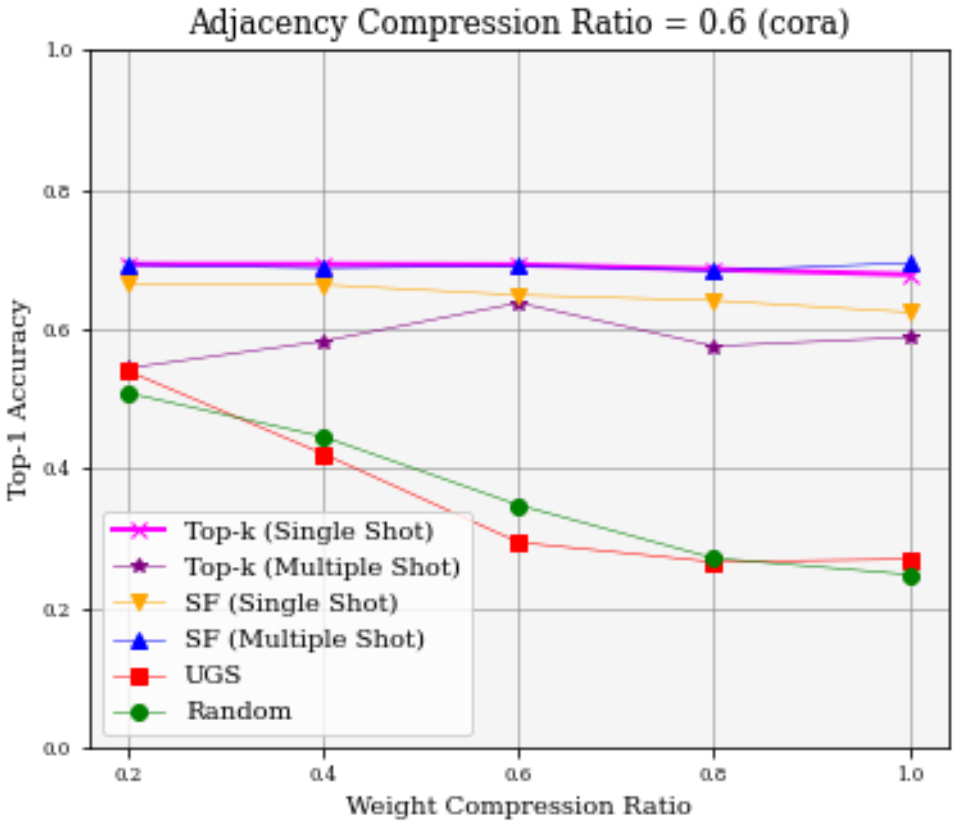
(1) <u>0.2 scale:</u> Weight Compression: [0.2,0.4,0.6,0.8,1.0] Adj Compression: [0.2,0.4,0.6,0.8,1.0] (Total 5 figures for each dataset)

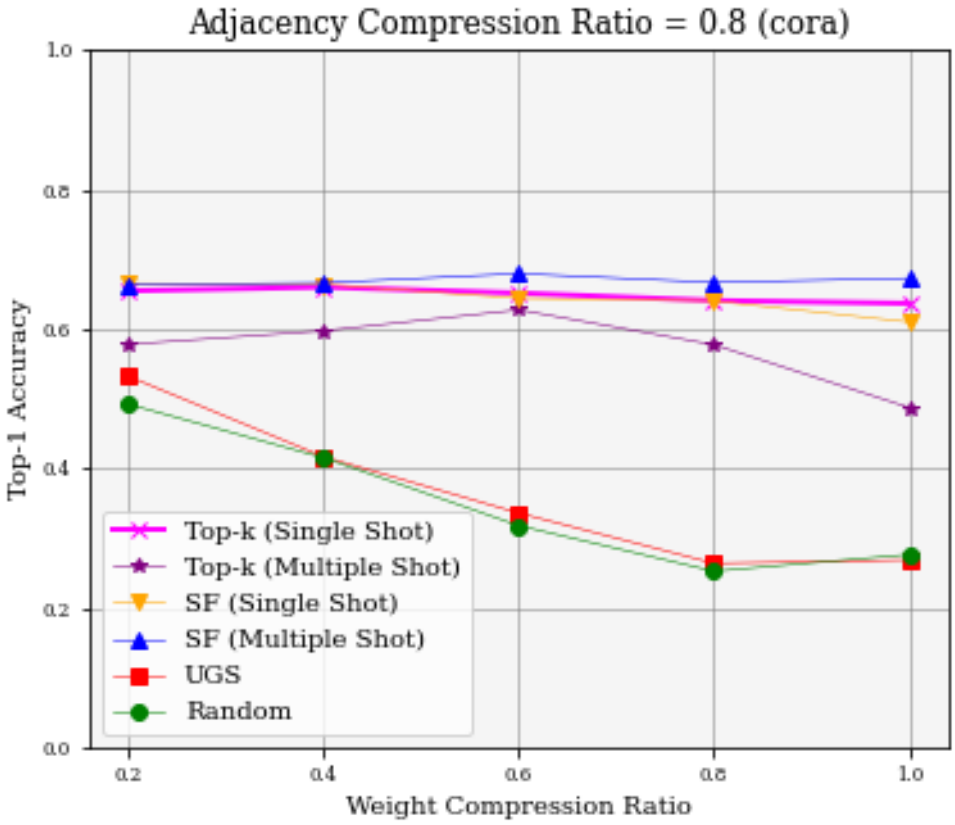
	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1)(Singleshot)	**DONE**	**DONE**		
Top-k(k=1) (Multishot Levels- 3)	**DONE**	**DONE**		
Synflow (Singleshot)	**DONE**	**DONE**		
Synflow (Multishot Levels- 3)	**DONE**	**DONE**		
UGS	**DONE**	**DONE**		
Random	**DONE**	**DONE**		

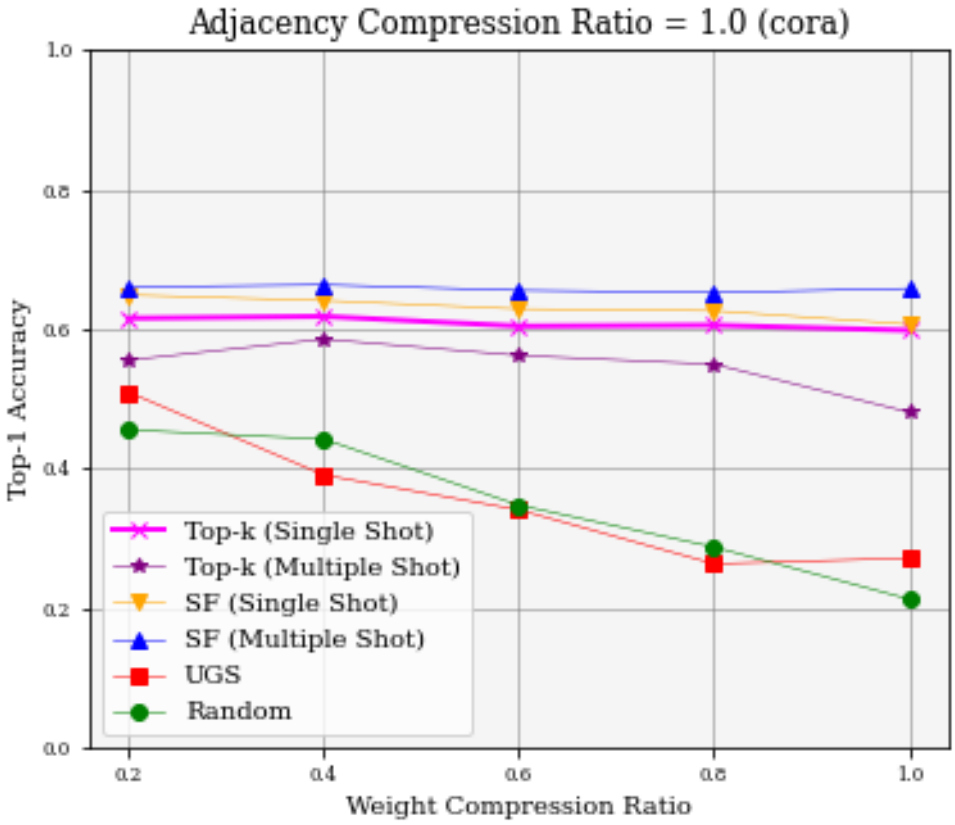
- Cora


Adjacency Compression Ratio = 0.2 (cora)
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.2
0.4
0.6
0.8
1.0
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random

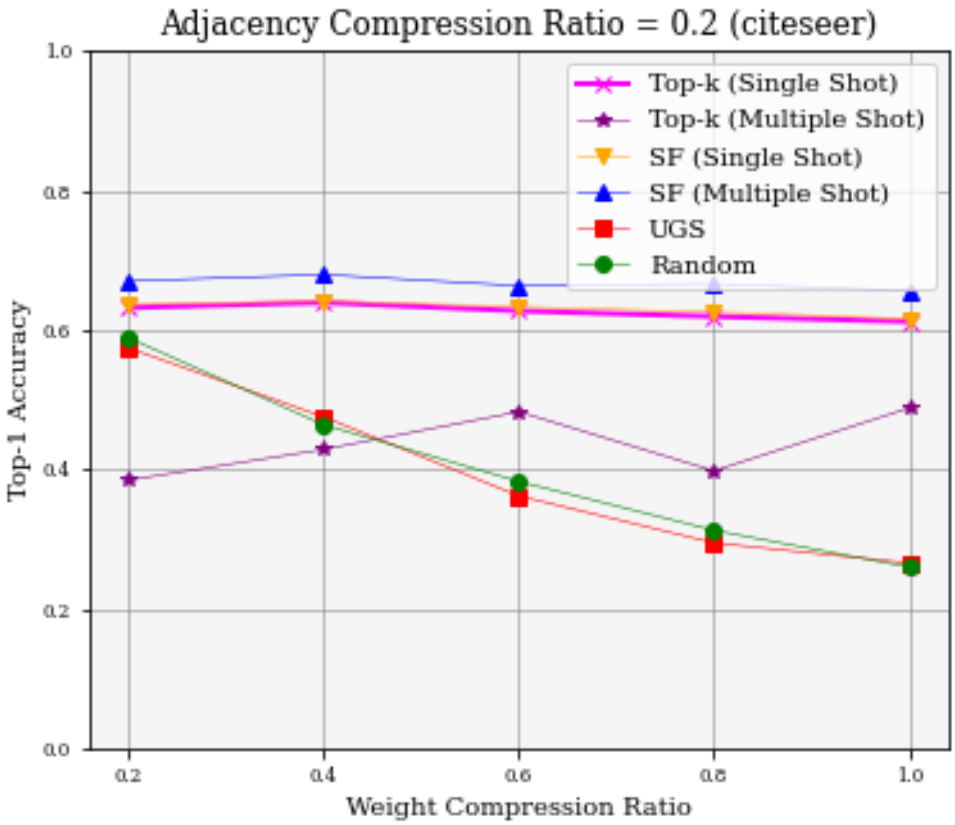

Adjacency Compression Ratio = 0.4 (cora)
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.2
0.4
0.6
0.8
1.0
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random

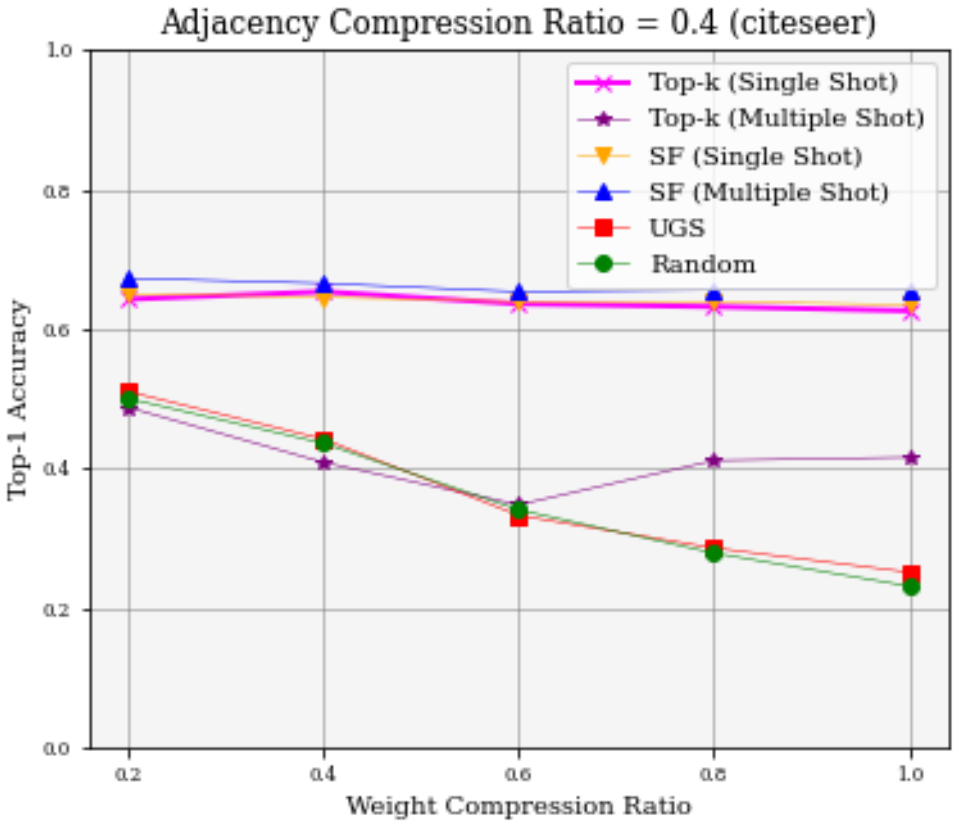

Adjacency Compression Ratio = 0.6 (cora)
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random

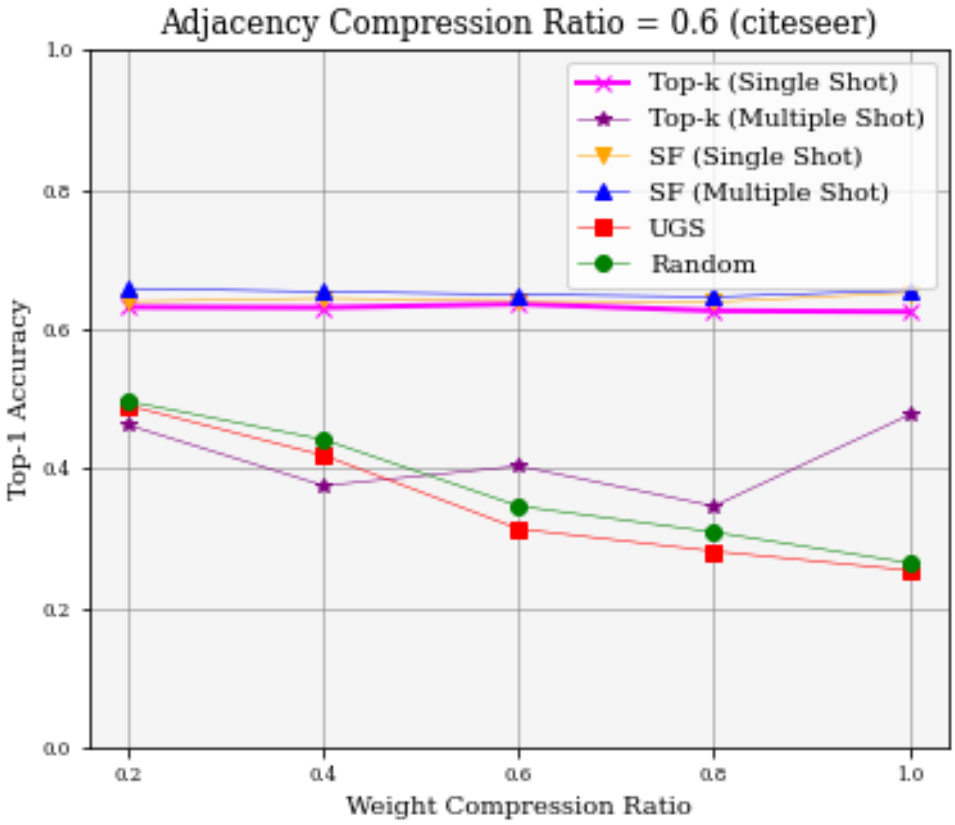

Adjacency Compression Ratio = 0.8 (cora)
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random

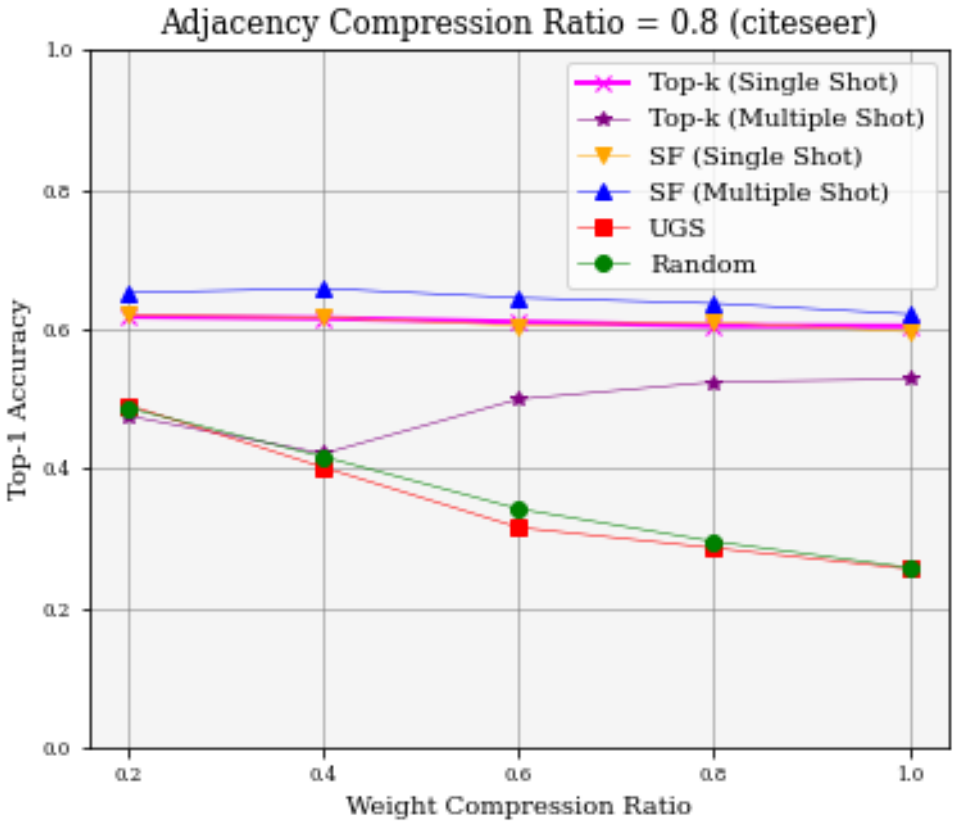

Adjacency Compression Ratio = 1.0 (cora)
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random

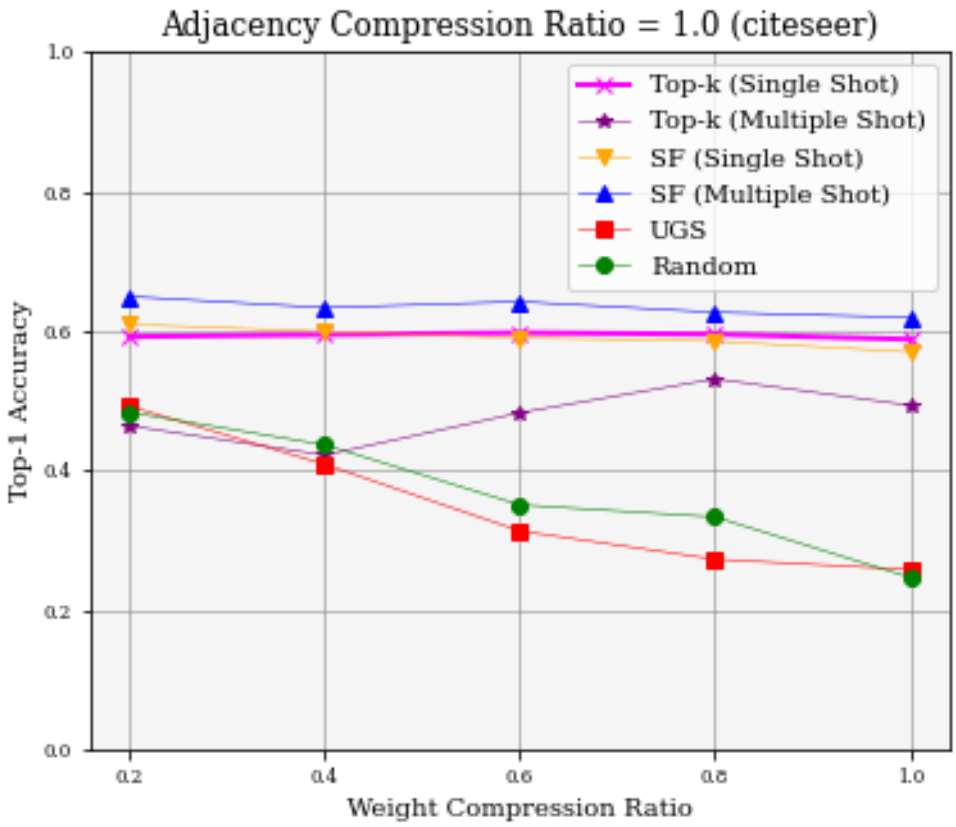
- Citeseer


Adjacency Compression Ratio = 0.2 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.2
0.4
0.6
0.8
1.0


Adjacency Compression Ratio = 0.4 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0


Adjacency Compression Ratio = 0.6 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0


Adjacency Compression Ratio = 0.8 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0

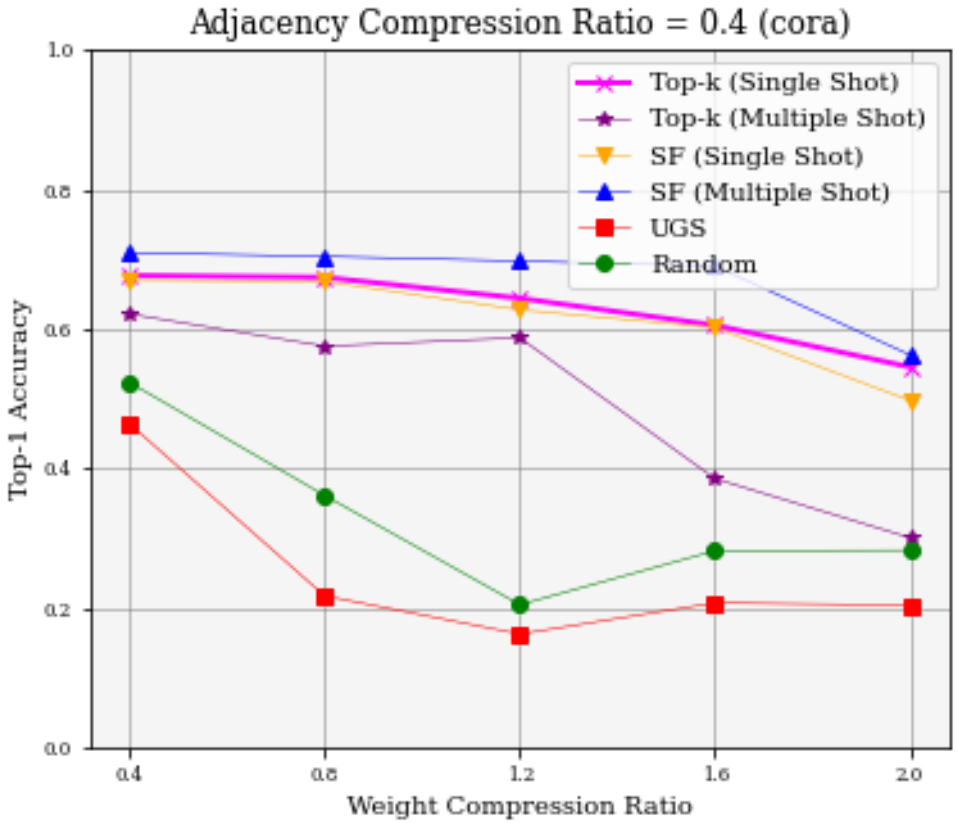


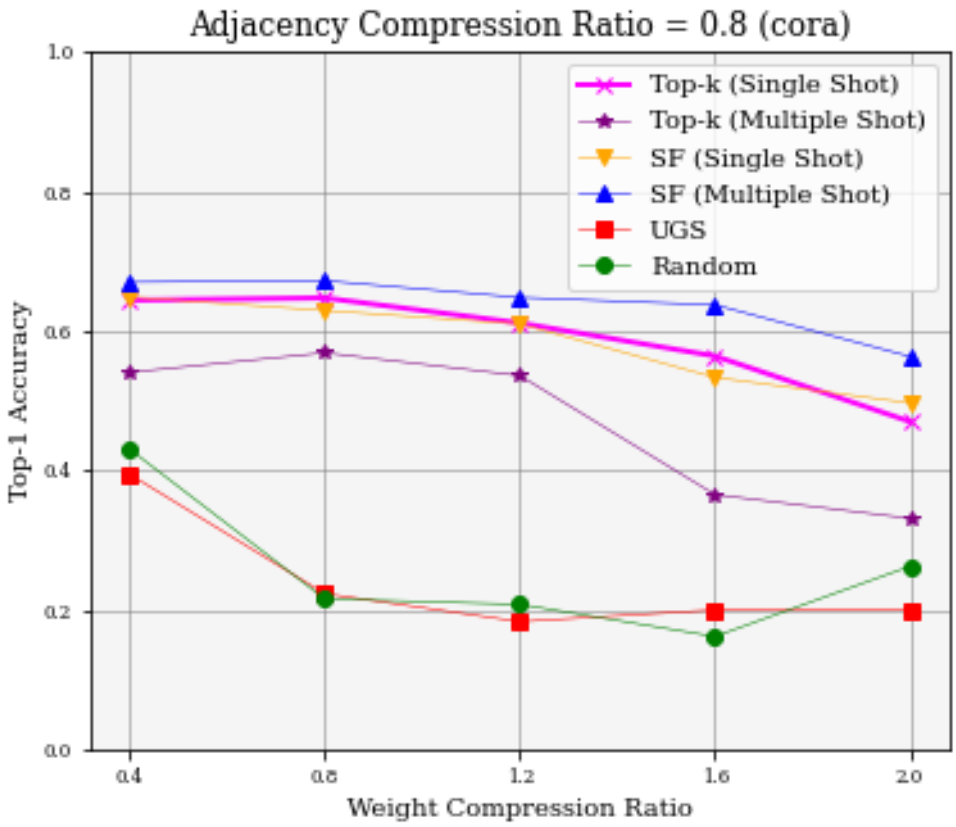
- Pubmed
- Wiki

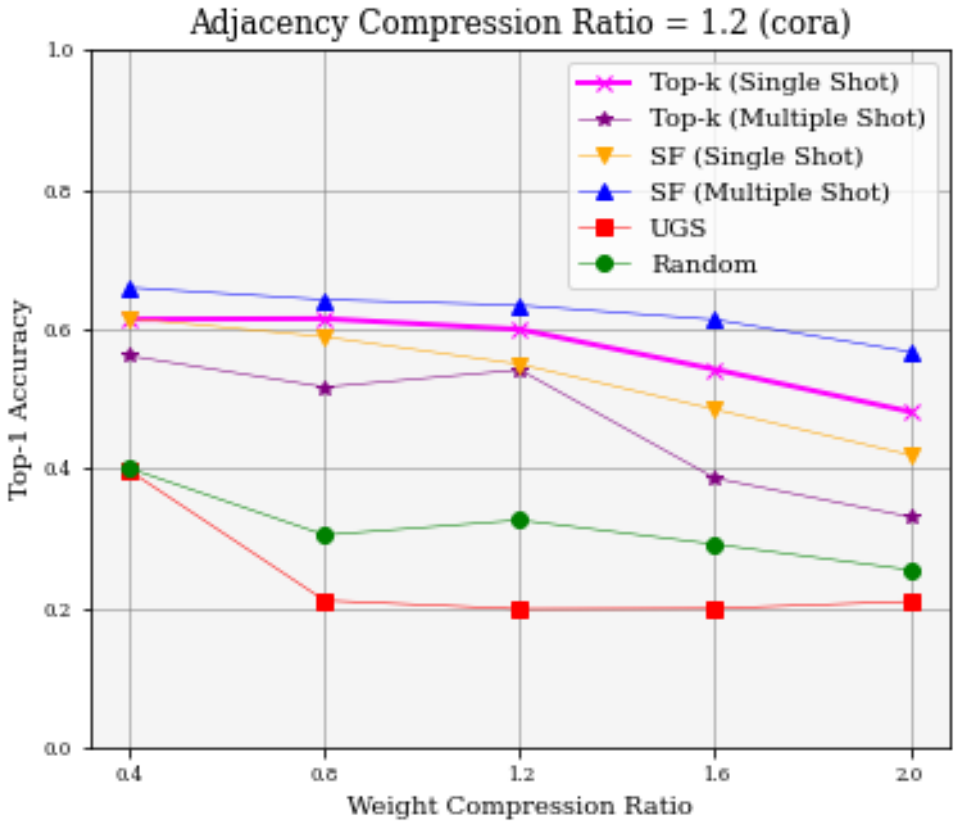
(2) <u>0.4 scale:</u> Weight: [0.4,0.8,1.2,1.6,2.0] Adj: 0.4,0.8,1.2,1.6,2.0] (Total 5 figures for each dataset)

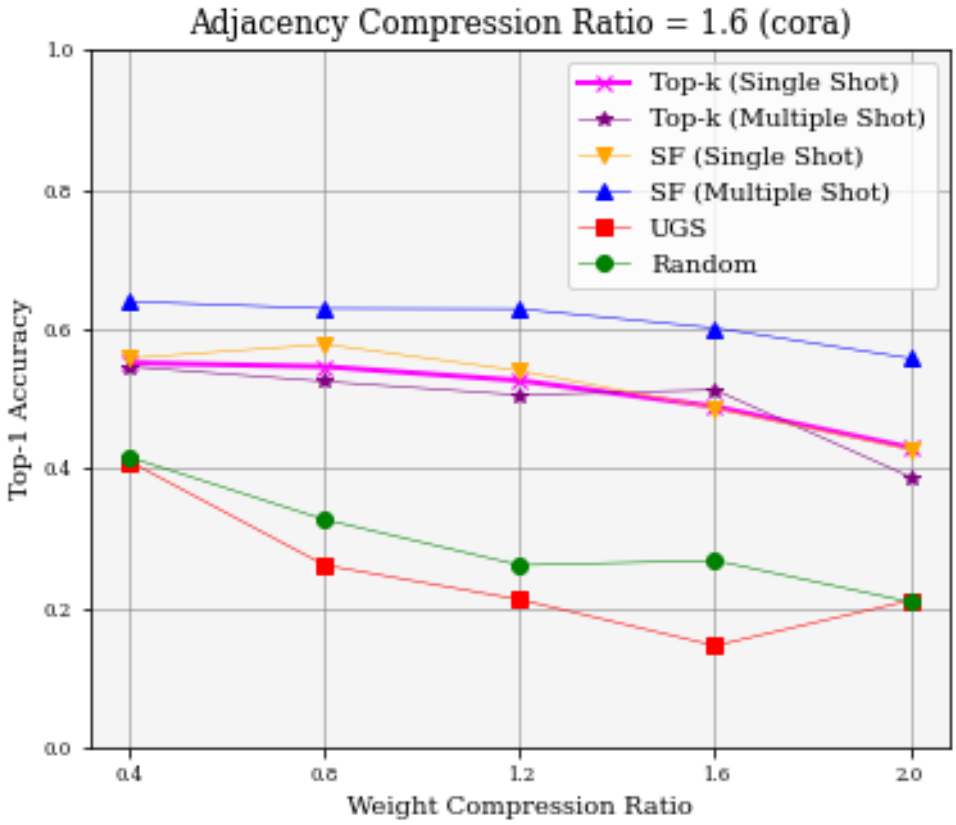
	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1) (Singleshot)	**DONE**	**DONE**		
Top-k (k=1) (Multishot Levels- 3)	**DONE**	**DONE**		
Synflow (Singleshot)	**DONE**	**DONE**		
Synflow (Multishot Levels- 3)	**DONE**	**DONE**		
UGS	**DONE**	**DONE**		
Random	**DONE**	**DONE**		

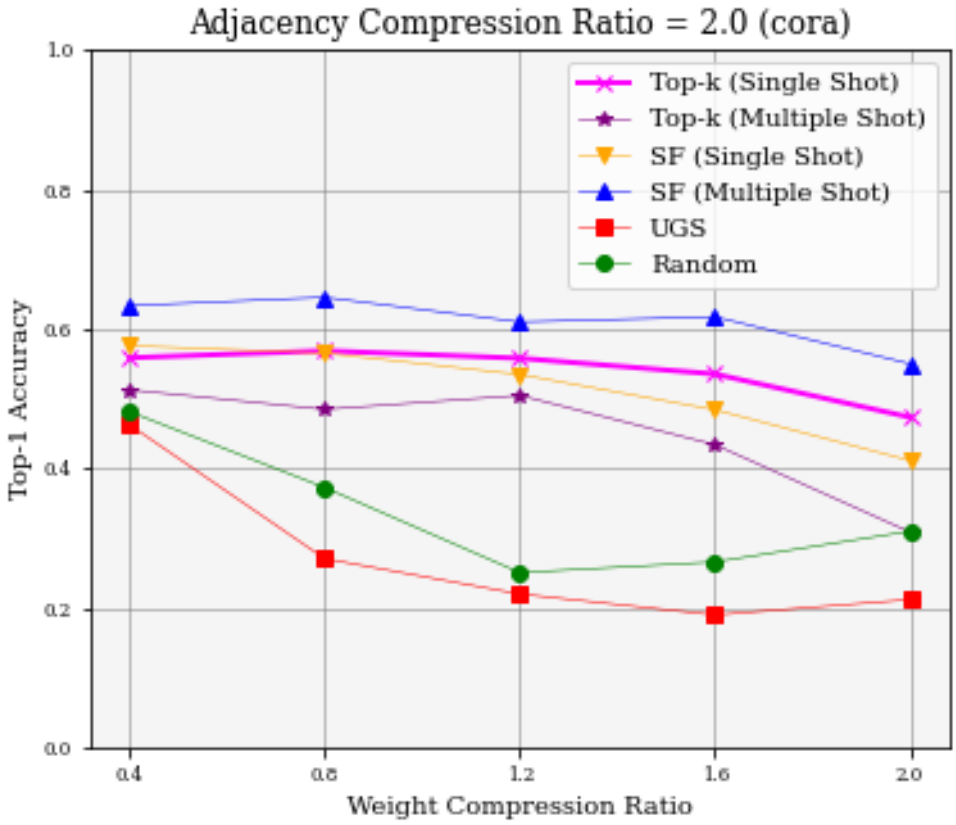
- Cora


Adjacency Compression Ratio = 0.4 (cora)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0

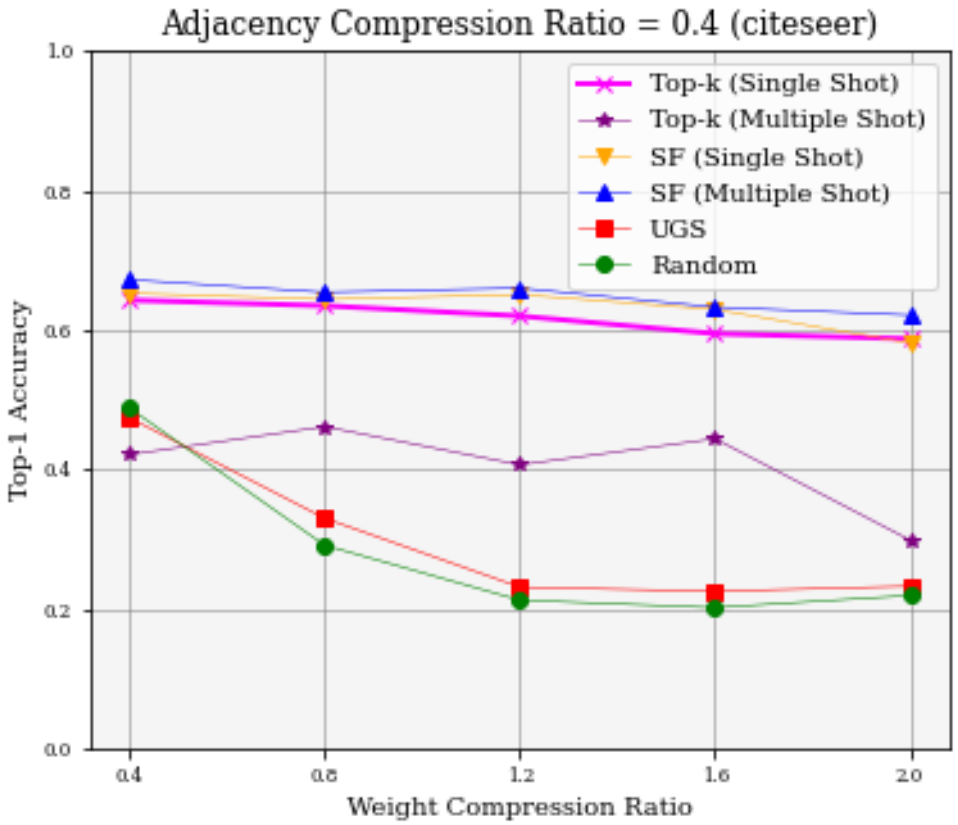

Adjacency Compression Ratio = 0.8 (cora)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0

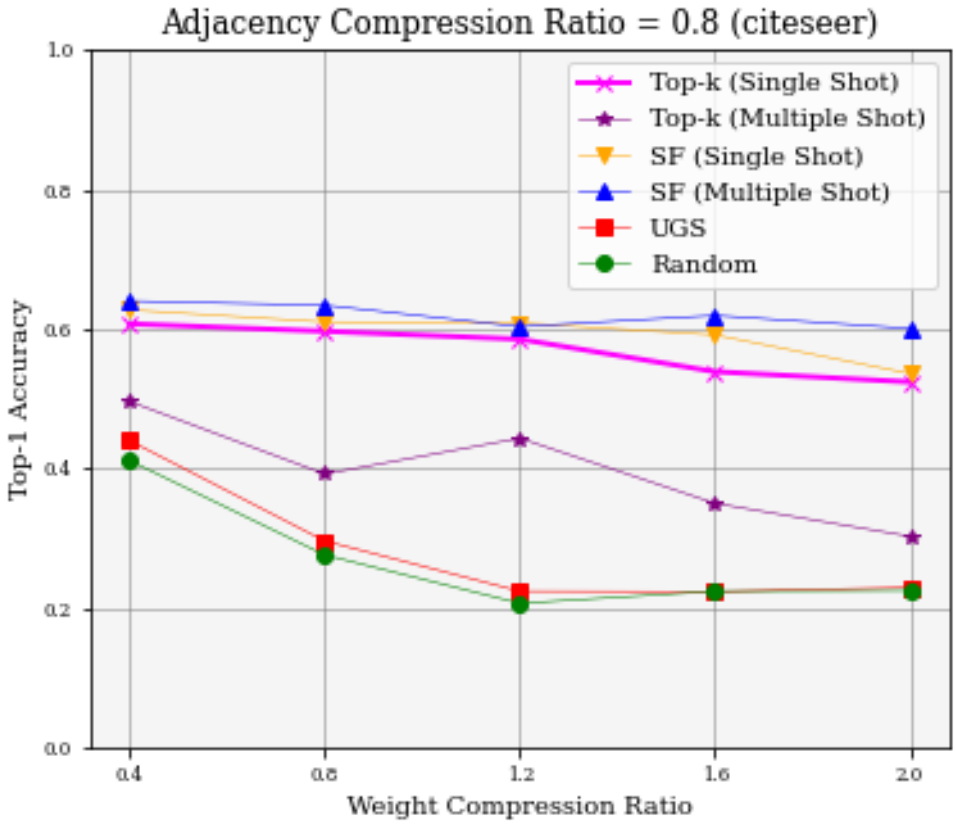

Adjacency Compression Ratio = 1.2 (cora)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0

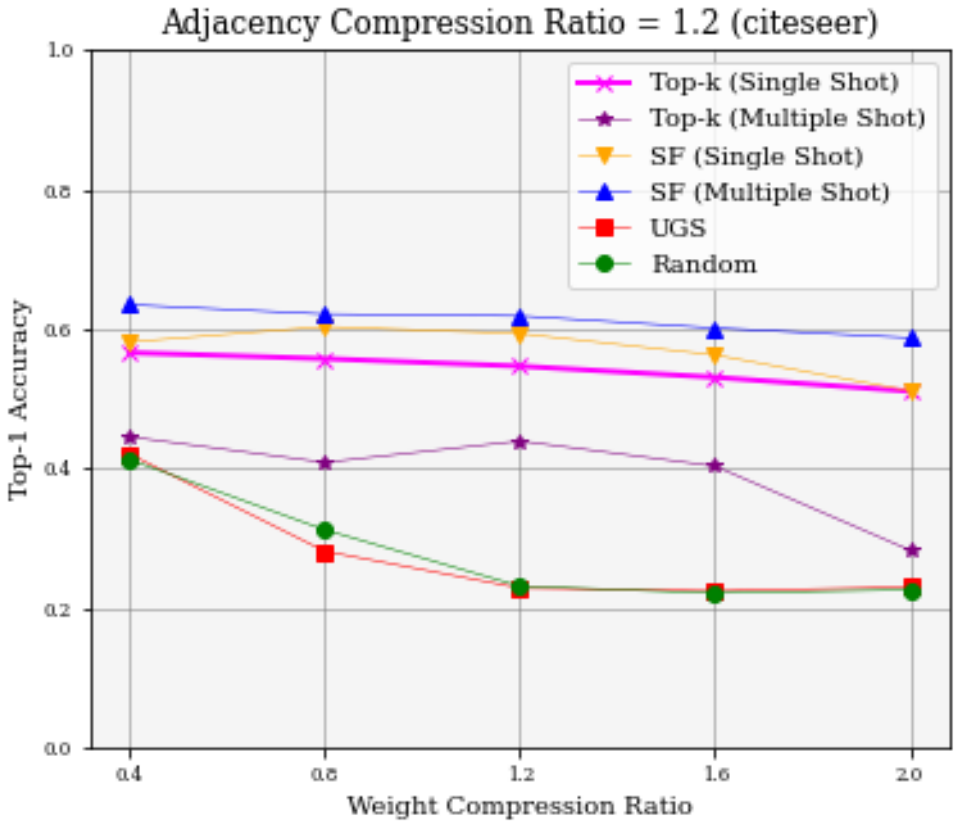

Adjacency Compression Ratio = 1.6 (cora)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0

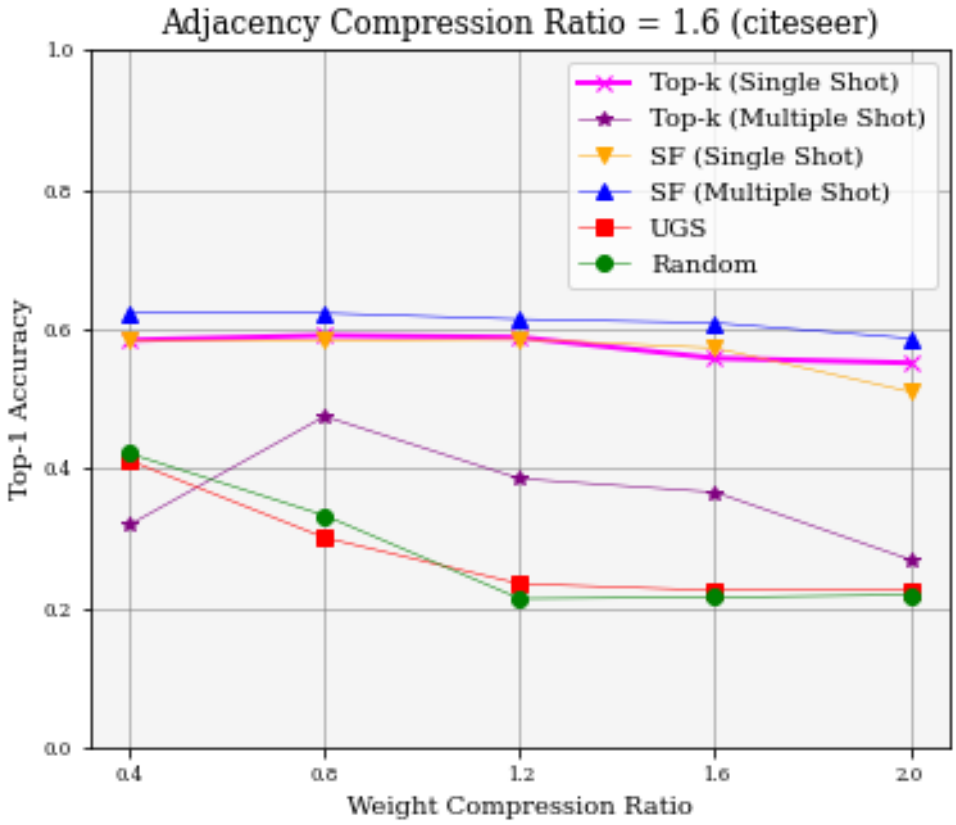

Adjacency Compression Ratio = 2.0 (cora)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
0.0
0.2
0.4
0.6
0.8
1.0
0.4
0.8
1.2
1.6
2.0

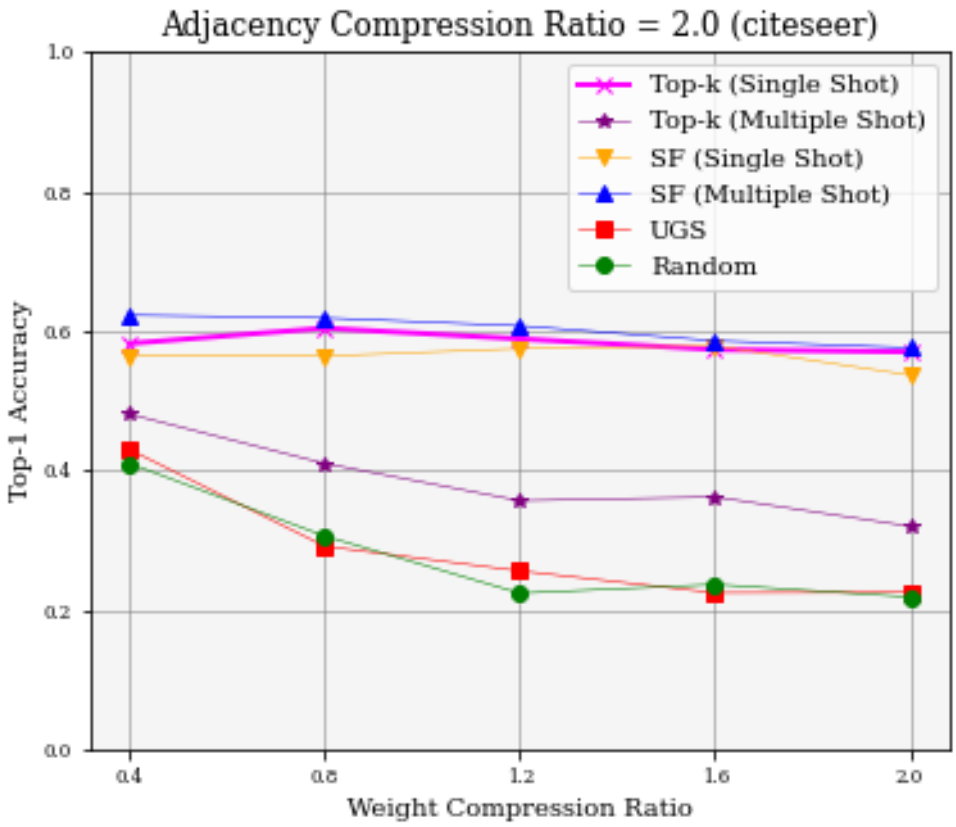
- Citeseer


Adjacency Compression Ratio = 0.4 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0


Adjacency Compression Ratio = 0.8 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0


Adjacency Compression Ratio = 1.2 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0


Adjacency Compression Ratio = 1.6 (citeseer)
Top-k (Single Shot)
Top-k (Multiple Shot)
SF (Single Shot)
SF (Multiple Shot)
UGS
Random
Top-1 Accuracy
Weight Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0.4
0.8
1.2
1.6
2.0



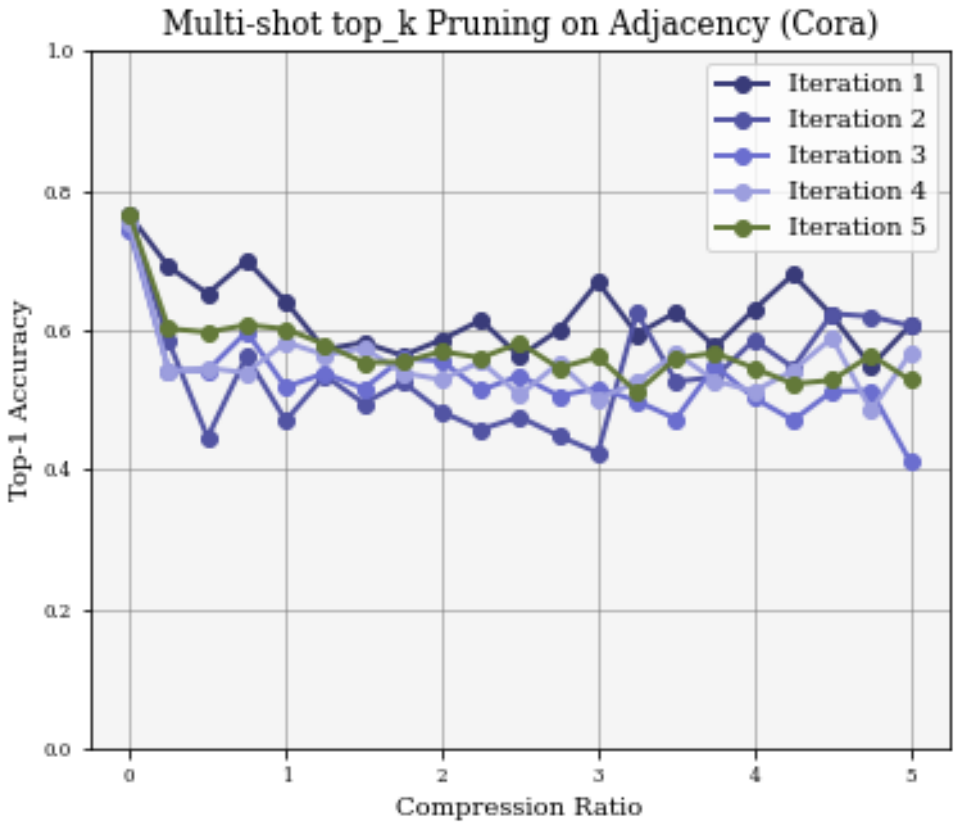
- Pubmed
- Wiki

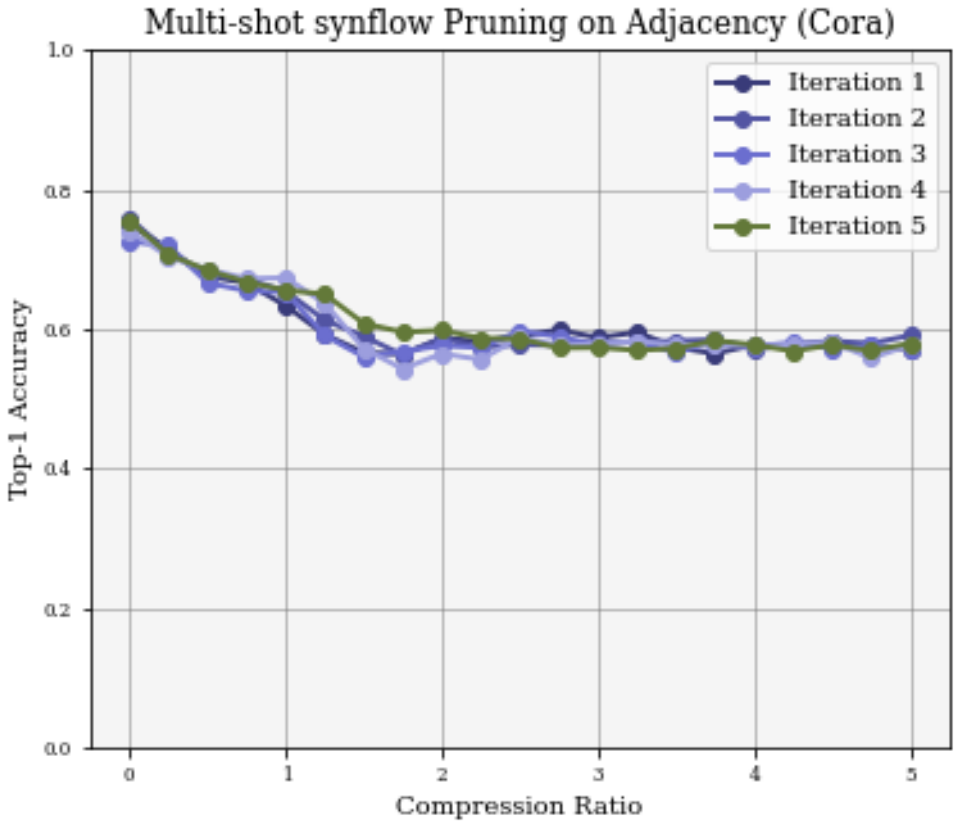
4. Multi Shot Iterations

(1) <u>On Adj</u>: Level 1 to Level 5

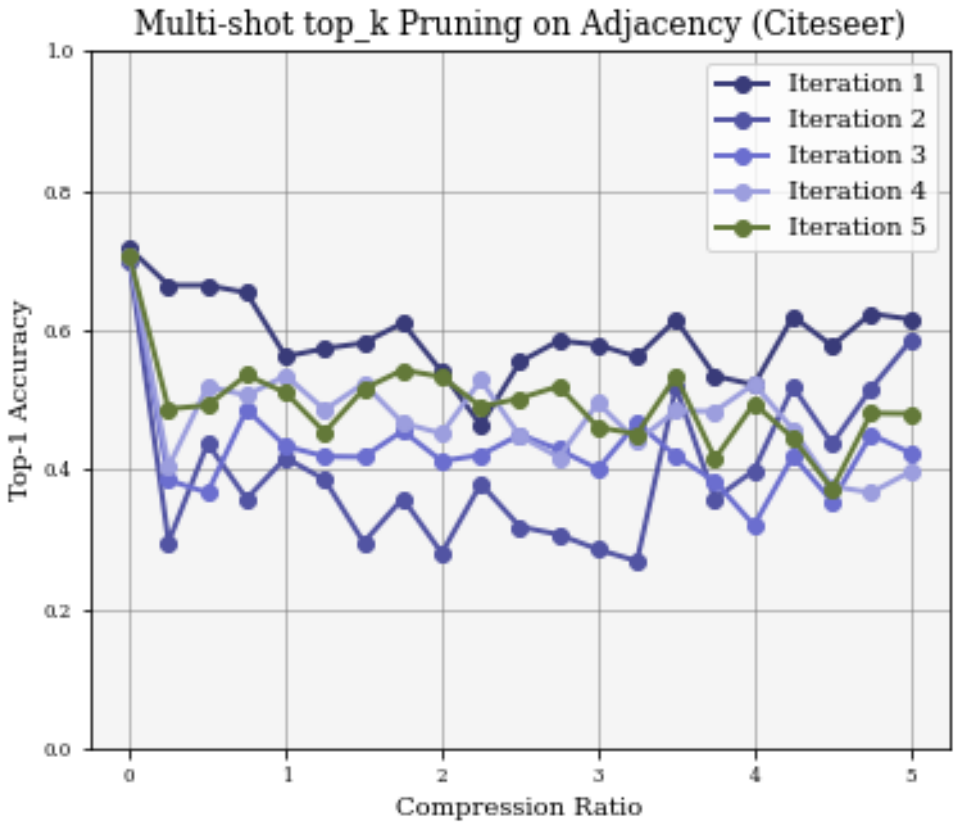
	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1) (Multishot)	**DONE**	**DONE**		
Synflow (Multishot)	**DONE**	**DONE**		

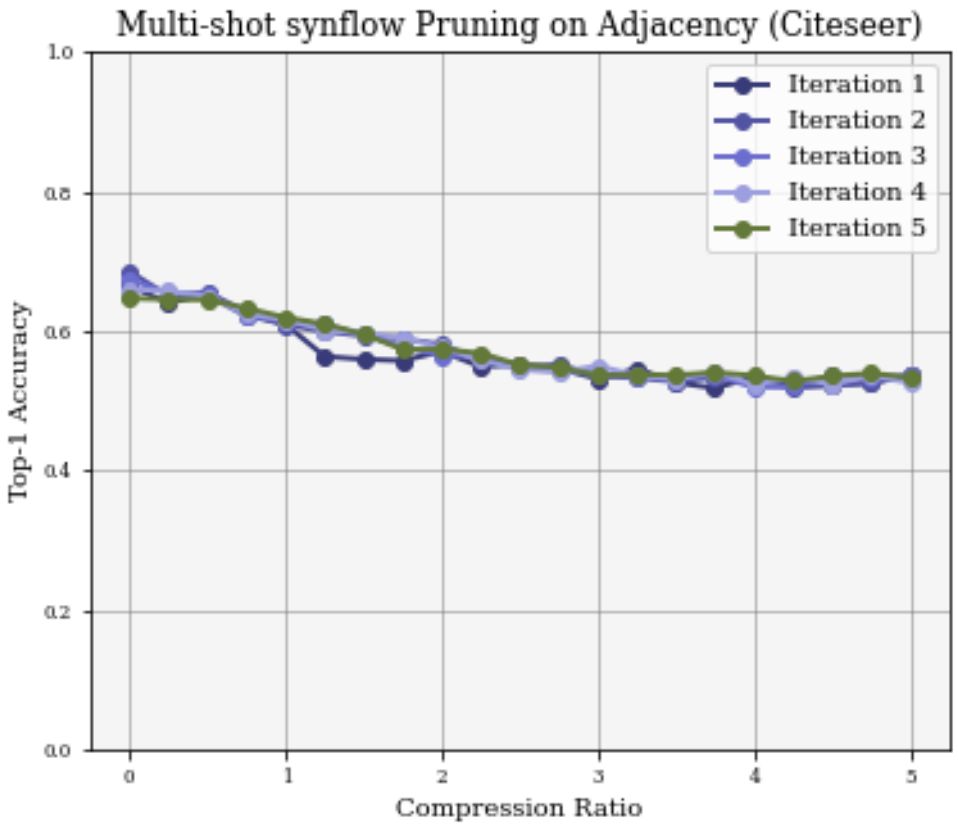
- Cora (Total 1 fig)




Multi-shot synflow Pruning on Adjacency (Cora)
Iteration 1
Iteration 2
Iteration 3
Iteration 4
Iteration 5
Top-1 Accuracy
Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5

- Citeseer (Total 1 fig)



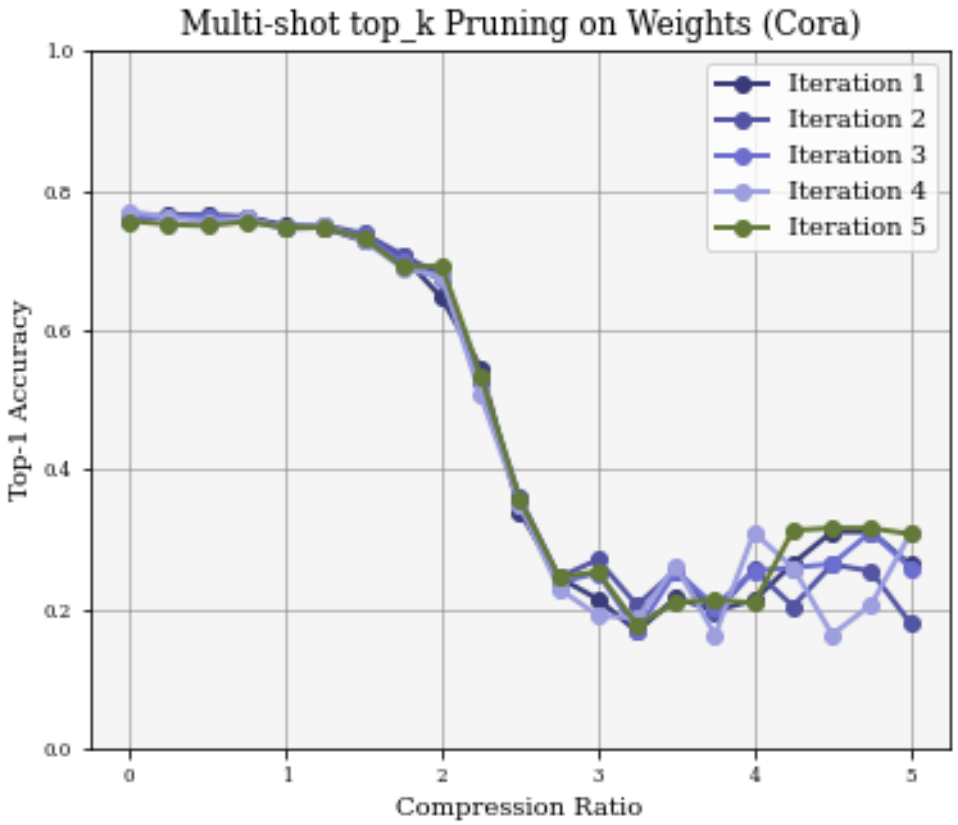


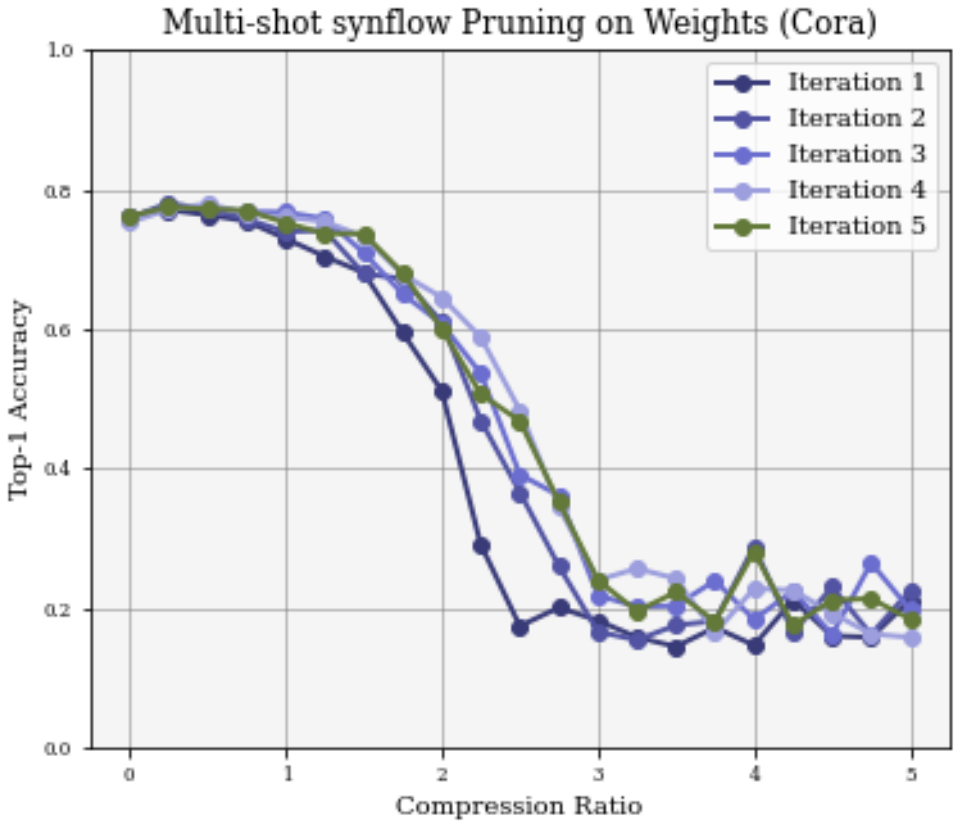
- Pubmed (Total 1 fig)
- Wiki (Total 1 fig)

(2) <u>On Weights</u>: Level 1 to Level 5

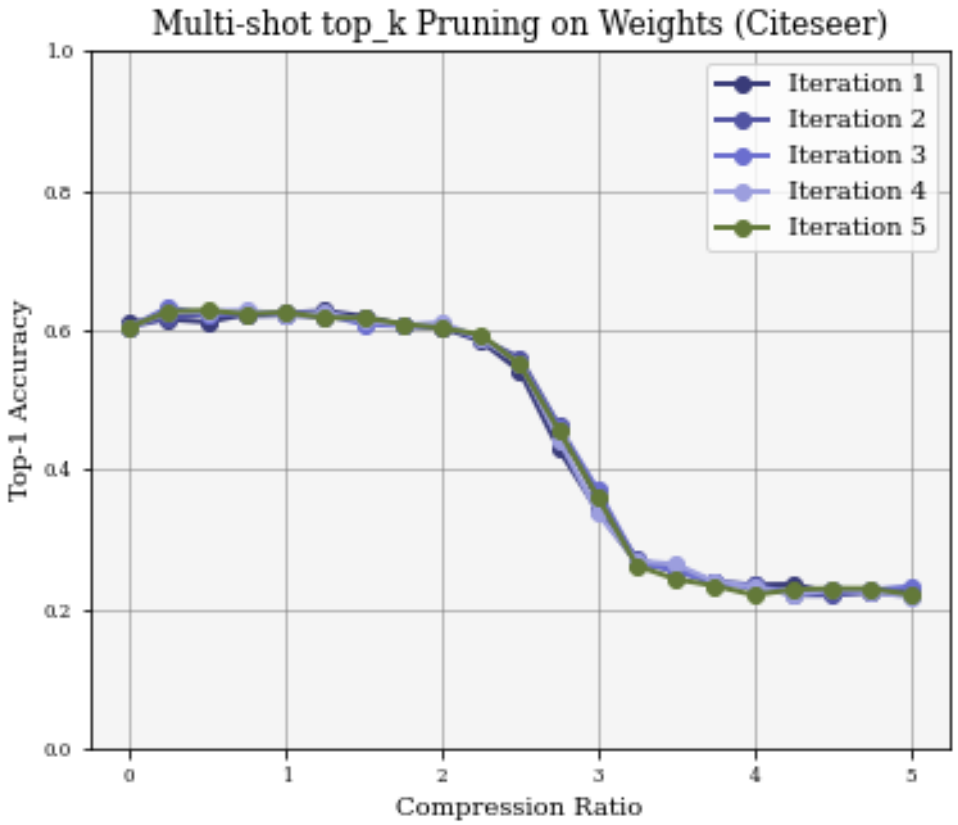
	Cora	Citeseer	Pubmed	Wiki
Top-k (k=1) (Multishot)	**DONE**	**DONE**		
Synflow (Multishot)	**DONE**	**DONE**		

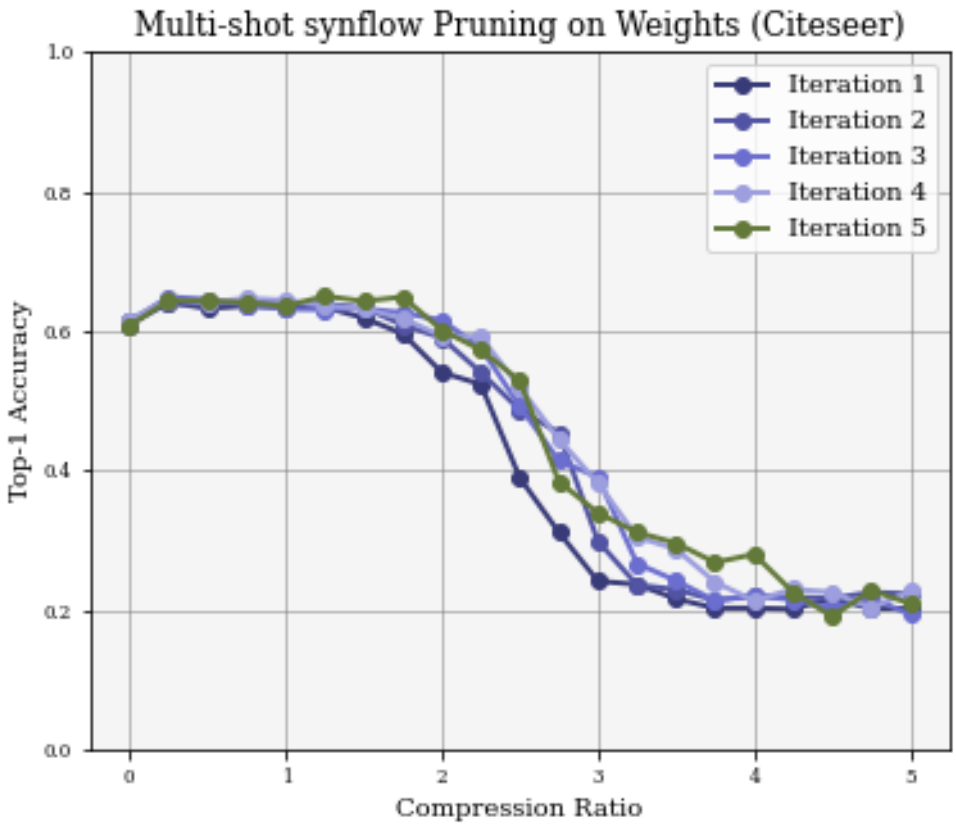
- Cora (Total 1 fig)




Multi-shot synflow Pruning on Weights (Cora)
Iteration 1
Iteration 2
Iteration 3
Iteration 4
Iteration 5
Top-1 Accuracy
Compression Ratio
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5

- Citeseer (Total 1 fig)



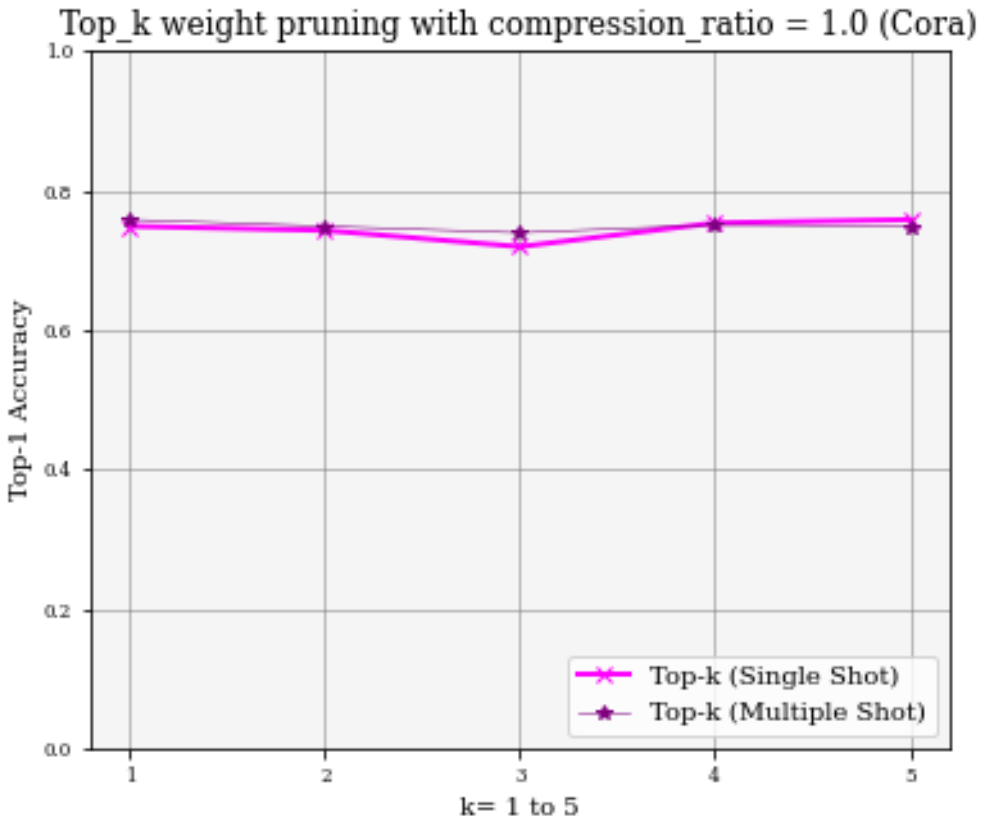


- Pubmed (Total 1 fig)
- Wiki (Total 1 fig)

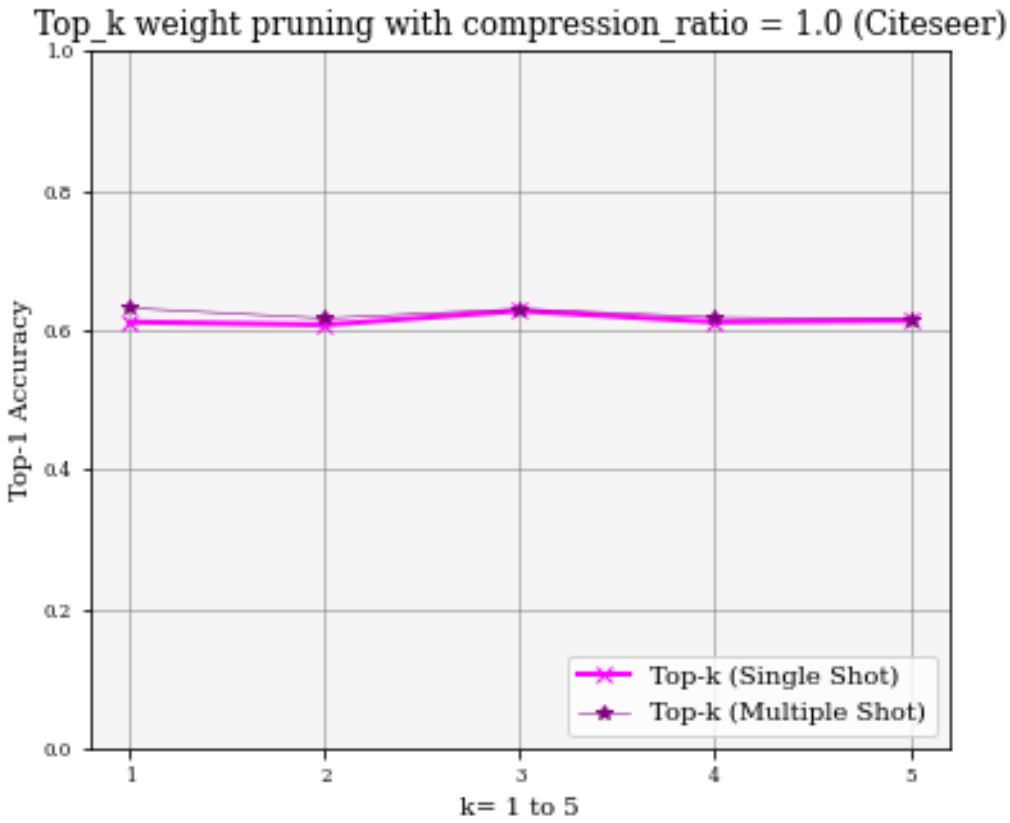
5. Top-k Selection (Compression Ratio set to 1.0)
   (1) From k to [1,2,3,4,5] on Weights and Adjacency Matrix (Total 2 figures for each dataset)
      a. <u>From k to [1,2,3,4,5] on Weights:</u>

	Cora	Citeseer	Pubmed	Wiki
Top-k (Multishot Levels-5)	**DONE**	**DONE**		
Top-k (Singleshot)	**DONE**	**DONE**		

- Cora


Top_k weight pruning with compression_ratio = 1.0 (Cora)
Top-1 Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
1
2
3
4
5
k= 1 to 5
Top-k (Single Shot)
Top-k (Multiple Shot)

- Citeseer

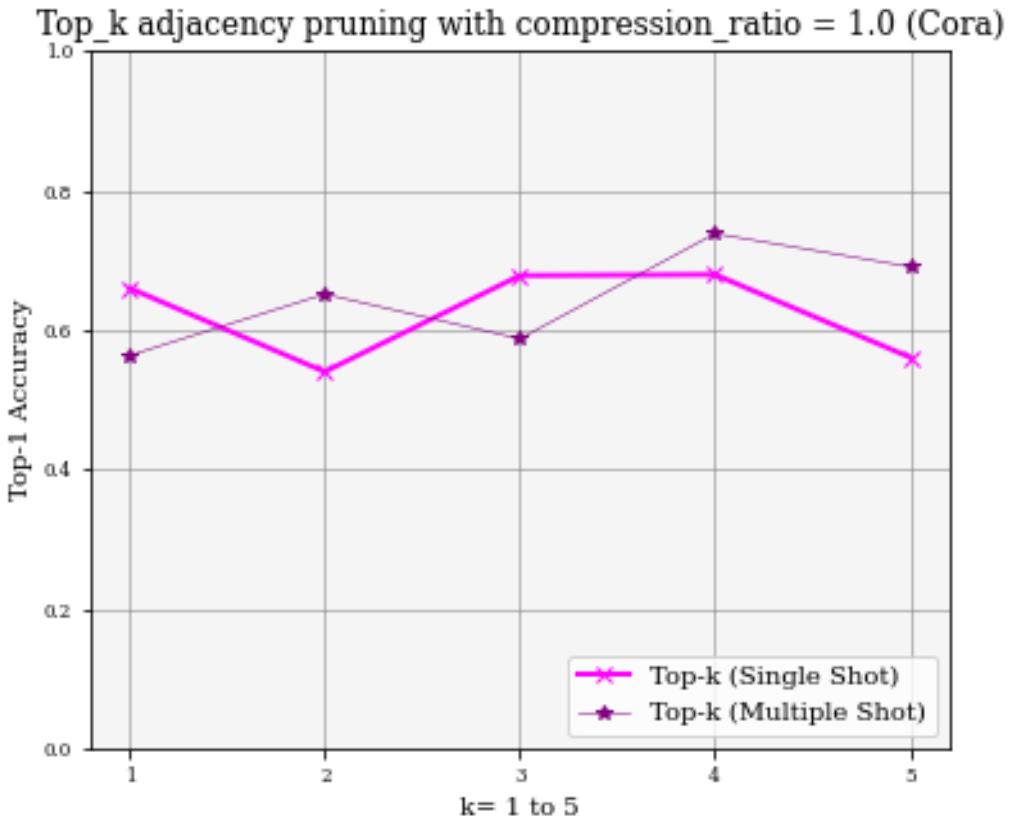


- Pubmed
- Wiki

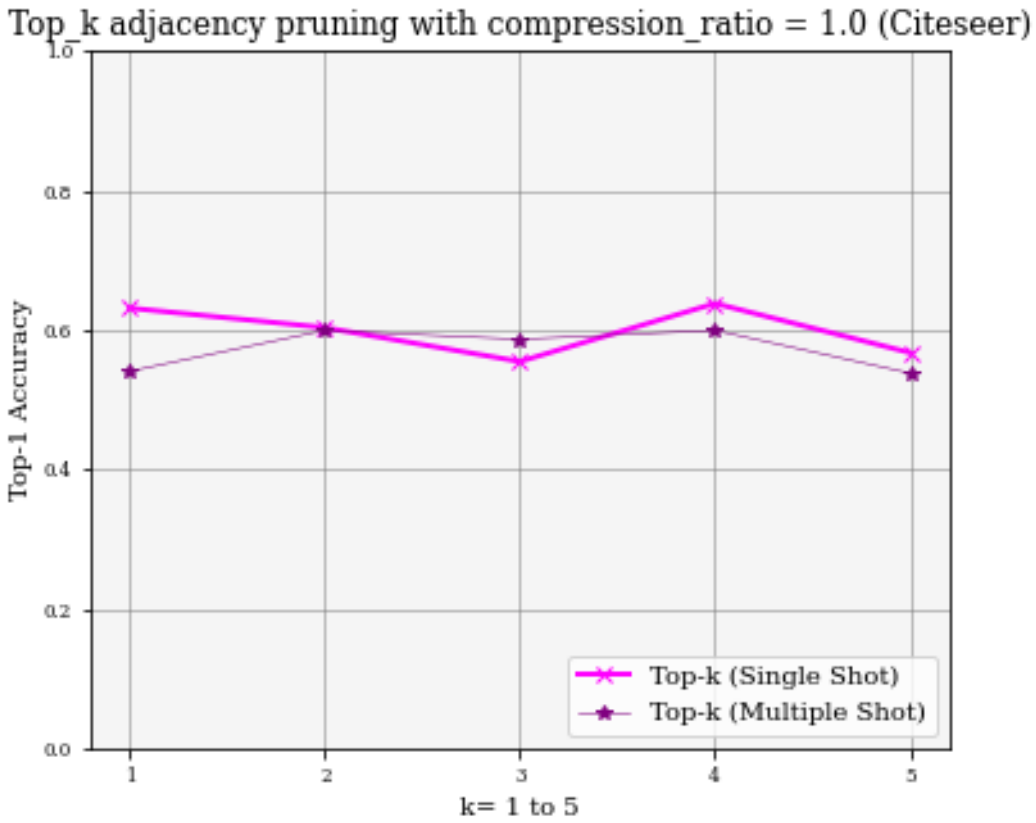
b. <u>From k to [1,2,3,4,5] on Adj:</u>

	Cora	Citeseer	Pubmed	Wiki
Top-k (Multishot Levels-5)	**DONE**	**DONE**		
Top-k (Singleshot)	**DONE**	**DONE**		

- Cora


Top_k adjacency pruning with compression_ratio = 1.0 (Cora)
Top-1 Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
1
2
3
4
5
k= 1 to 5
Top-k (Single Shot)
Top-k (Multiple Shot)

- Citeseer



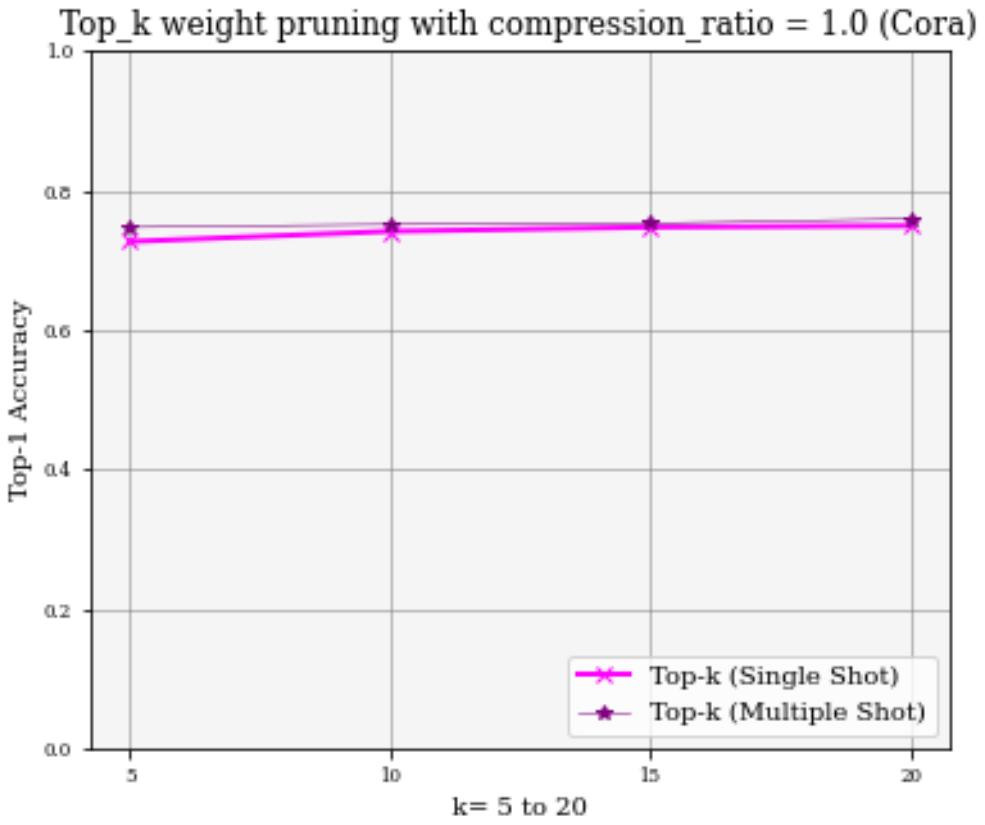
- Pubmed
- Wiki

(2) From k to [5,10,15,20] on Weights and Adjacency Matrix (Total 2 figures for each dataset)

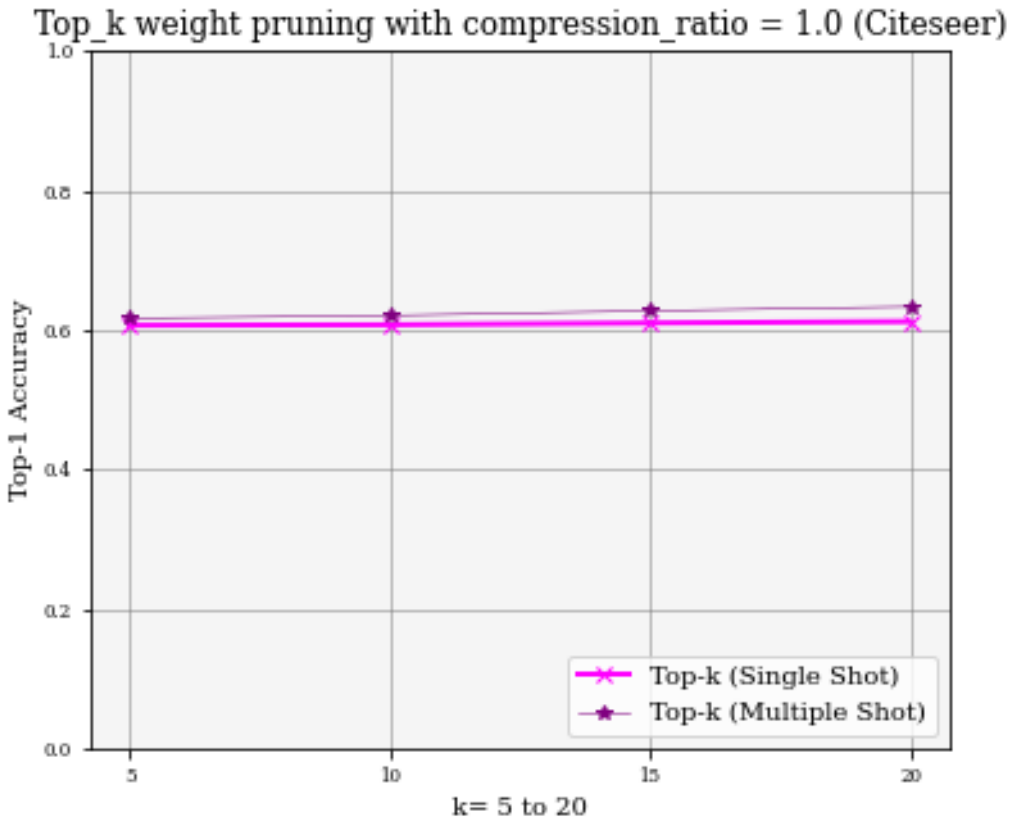
a. <u>From k to [5,10,15,20] on Weights:</u>

	Cora	Citeseer	Pubmed	Wiki
Top-k (Multishot Levels-5)	**DONE**	**DONE**		
Top-k (Singleshot)	**DONE**	**DONE**		

- Cora


Top_k weight pruning with compression_ratio = 1.0 (Cora)
Top-1 Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
5
10
15
20
k= 5 to 20
Top-k (Single Shot)
Top-k (Multiple Shot)

- Citeseer

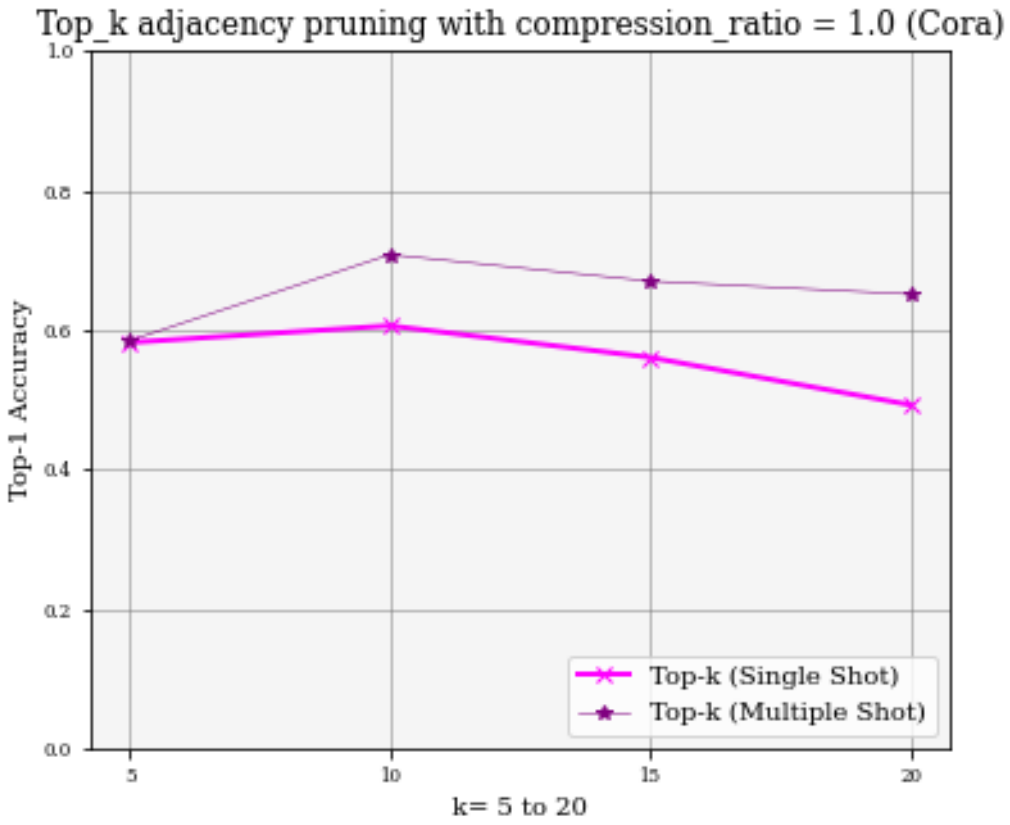


- Pubmed
- Wiki

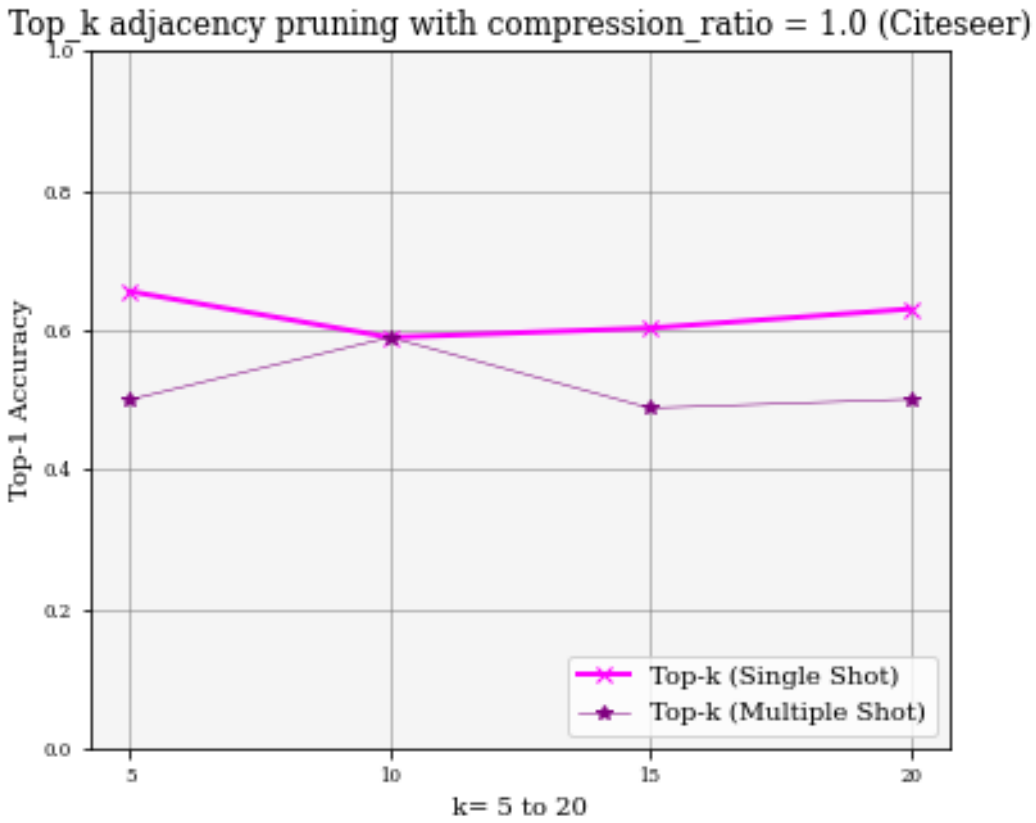
b. From k to [5,10,15,20] on Adj:

	Cora	Citeseer	Pubmed	Wiki
Top-k (Multishot Levels-5)	**DONE**	**DONE**		
Top-k (Singleshot)	**DONE**	**DONE**		

- Cora


Top_k adjacency pruning with compression_ratio = 1.0 (Cora)
Top-1 Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
5
10
15
20
k= 5 to 20
Top-k (Single Shot)
Top-k (Multiple Shot)

- Citeseer



- Pubmed
- Wiki