

similarity matrix

a	1.4	1.7	3.8	3.8	0.8	0.8
b	1.3	3.6	0.9	0.8	2.1	6.7
c	2.5	0.4	4.3	1.2	0.7	1.0
d	0.4	1.8	1.9	1.1	2.7	3.8
e	1.1	1.5	0.5	0.4	0.6	3.6
f	0.8	0.7	2.7	2.1	5.5	1.0
	0	1	2	3	4	5

Sinkhorn

doubly-stochastic matrix

a	0.2	0.1	0.2	0.4	0.1	0.0
b	0.1	0.3	0.1	0.1	0.1	0.3
c	0.3	0.0	0.3	0.1	0.1	0.1
d	0.1	0.2	0.1	0.1	0.2	0.2
e	0.2	0.2	0.1	0.1	0.1	0.3
f	0.1	0.1	0.2	0.2	0.4	0.0
	0	1	2	3	4	5

Hungarian

permutation matrix

a	0.0	0.0	0.0	1.0	0.0	0.0
b	0.0	1.0	0.0	0.0	0.0	0.0
c	1.0	0.0	0.0	0.0	0.0	0.0
d	0.0	0.0	1.0	0.0	0.0	0.0
e	0.0	0.0	0.0	0.0	0.0	1.0
f	0.0	0.0	0.0	0.0	1.0	0.0
	0	1	2	3	4	5

Attention Pooling

output matrix

a	0.0	0.0	0.0	0.4	0.0	0.0
b	0.1	0.3	0.0	0.0	0.0	0.0
c	0.3	0.0	0.0	0.0	0.0	0.0
d	0.0	0.0	0.1	0.0	0.0	0.0
e	0.0	0.0	0.0	0.0	0.0	0.3
f	0.0	0.0	0.0	0.0	0.4	0.0
	0	1	2	3	4	5

attention activation

a	0.0	0.0	0.0	1.0	0.0	0.0
b	1.0	1.0	0.0	0.0	0.0	0.0
c	1.0	1.0	0.0	0.0	0.0	0.0
d	0.0	0.0	1.0	0.0	0.0	0.0
e	0.0	0.0	0.0	0.0	0.0	1.0
f	0.0	0.0	0.0	0.0	1.0	0.0
	0	1	2	3	4	5

Hungarian Attention

ground truth matrix

a	0.0	0.0	0.0	1.0	0.0	0.0
b	1.0	0.0	0.0	0.0	0.0	0.0
c	0.0	1.0	0.0	0.0	0.0	0.0
d	0.0	0.0	1.0	0.0	0.0	0.0
e	0.0	0.0	0.0	0.0	0.0	1.0
f	0.0	0.0	0.0	0.0	1.0	0.0
	0	1	2	3	4	5