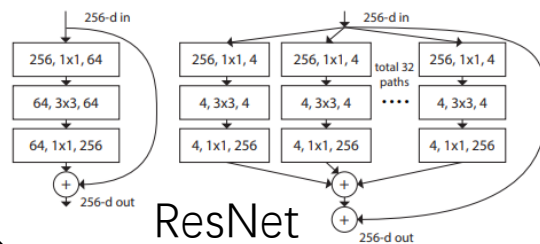
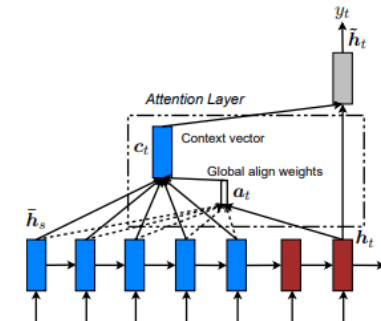


2017
DeepFM

2017
DCN



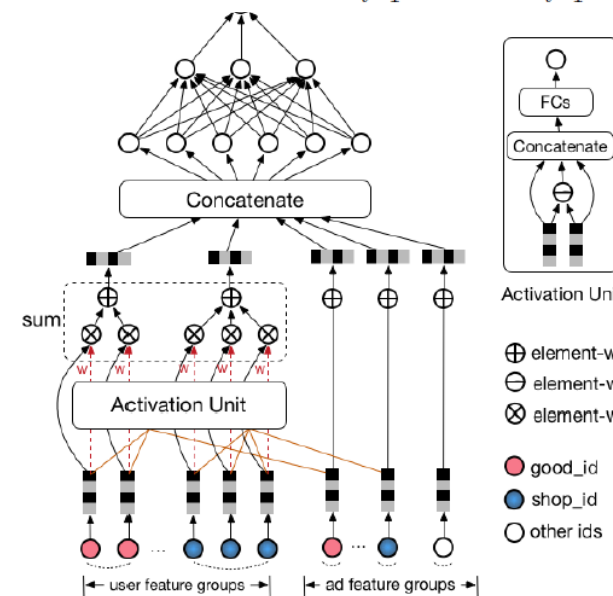
2017
AFM



+ Weighted Sum Pooling

2018
DIN

$$V_u = f(V_a) = \sum_{i=1}^N w_i * V_i = \sum_{i=1}^N g(V_i, V_a) * V_i$$



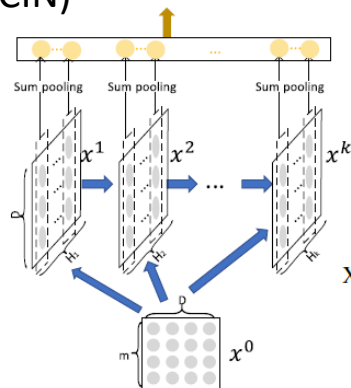
local activation structure
weighted sum pooling

Compressed
Interaction Network
(CIN)

+ Shortcut

Cross Net →
CIN

2018
xDeepFM



$$X_{h,*}^k = \sum_{i=1}^{H_{k-1}} \sum_{j=1}^m W_{ij}^{k,h} (X_{i,*}^{k-1} \circ X_{j,*}^0)$$

