

GloVe

# GloVe Structure

- Overcome the disadvantages of Word2Vec, LSA
  - LSA, Hard to measure the similarity among the words
  - Word2Vec, Does not reflect the whole corpus' statistical info.(very local)

- Define a 'objective function'

$$\mathcal{J} = \sum_{i,j=1}^{|V|} f(A_{ij})(U_i \cdot V_j + b_i + b_j - \log A_{ij})^2$$

Minimize the gap between  $U_i \cdot V_j$  and  $A_{ij}$

= decreases train loss

# GloVe Structure

- To find an embedding vector which minimize an objective function, Matrix factorization is needed.(High computational complexity)

