

## Silhouette coefficient of a sample $i$

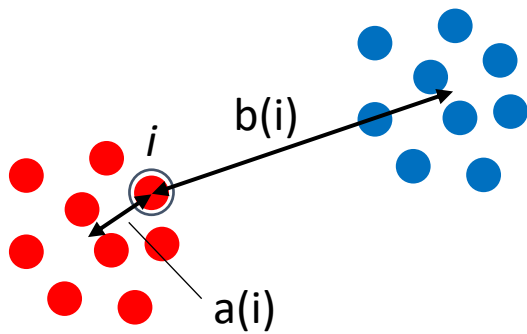
$$sil(i) = \frac{b(i) - a(i)}{\max(a(i), b(i))} \quad \text{ranges from -1 to +1}$$

Where:

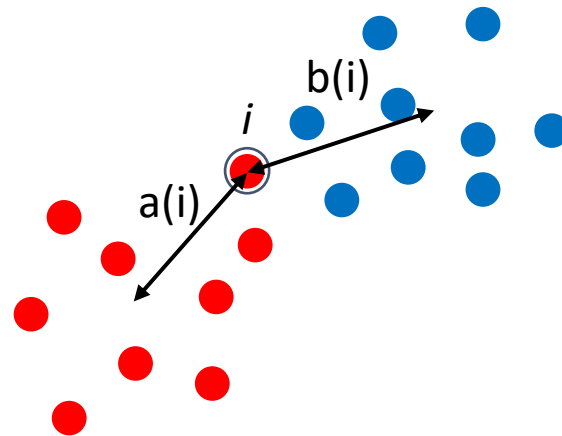
$a(i)$  is the average distance of  $i$  to a point of the **same** cluster

$b(i)$  is the average distance of  $i$  to a point of the **nearest** (different) cluster

$sil(i) > 0$



$sil(i)$  close to 0



$sil(i) < 0$

