Triplet-center loss

Triplet loss

$$L_{tpl} = \sum_{i=1}^{N} \max\left[0, m + D\left(f(x_a^i), f(x_+^i)\right) - D\left(f(x_a^i), f(x_-^i)\right)\right]$$

margin

Center loss

$$L_c = \frac{1}{2} \sum_{i=1}^{r} D\left(f(x^i), c_{y_i}\right)$$

c_{y_i} → cluster center

intra-class distance minimize.

Triplet-center loss

$$L_{tc} = \sum_{i=1}^{M} \max\left[D(f_i, c_{y_i}) + m - \min_{j \neq y_i} D(f_i, c_j), 0\right]$$

f_i → example belongs to y^ith class.