Machine Learning Test Suite Identification Tool

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As we need predict from one sentence to another sentence. Suppose the source sentence can encoded as a vector v_b and the target sentence can encoded as another vector v_{tc}.

$$v_b, v_{tc} \in \mathbb{R}^n$$

We use Euclidean distance for vector's distance

$$D_W = ||v_b - v_{tc}||$$

And use Siamese Network's loss function. Y either 1 or 0. If the sentences are in pair, then the value of Y is 0, otherwise Y is 1, m is a margin value.

$$Loss = (1 - Y)\frac{1}{2}(D_w)^2 + (Y)\frac{1}{2}(max(0, m - D_W))^2$$