Histogram Intersection

$$\text{Hmatch}(h_I, h_M) = \frac{\text{intersection}(h_I, h_M)}{\sum_{j=1}^{K} h_M[j]}$$

Note : numerator is always $\leq$ denominator.

Histogram Intersection is not symmetric

$$\text{intersection}(h_I, h_M) = \sum_{j=1}^{K} \min\{h_I[j], h_M[j]\}$$

K is the number of bins in the histogram

h_I = image histogram h_M = histogram of model image