Color Filter for Clothing-retail Companies

Euclidean Distance for Color Resemblance

Unsorted Images in the Catalogue

The Task


Retrieving Red Items (255,0,0)
Rank(1), Dist(53.2335)
Rank(2), Dist(76.005)
Rank(3), Dist(78.4275)
Rank(4), Dist(80.8757)
Rank(5), Dist(81.198)
Rank(6), Dist(90.6058)
Rank(7), Dist(93.7509)
Rank(8), Dist(94.5984)
Rank(9), Dist(97.5375)
Rank(10), Dist(108.9392)
Rank(11), Dist(114.9551)
Rank(12), Dist(128.8142)FindingF

Yellow (255,255,0) Clothes

Rank(1), Dist(86.1324)

Rank(2), Dist(94.1487)

Rank(3), Dist(101.6008)

The Algorithm

Input the **color** (**C**) to search for, example (**140**,**183**,**247**)
Create [] **arrayDistance** (double)

For All images in the folder (1.png **–** 60.png**)**
    Read Image (at position **P**)
    Create varR, varG, varB, count
    Scan image (column-wise or row-wise)
        If current pixel color is not a background
            Add R to varR
            Add G to varG
            Add B to varB
            Increment count
        End if
    End Scan
    Get the mean color (**meanC**) of varR, varG, varB
    Calculate the euclidean distance (**edist)** between **C** and **meanC**
    Add **edist** to **arrayDistance** at position **P**
End For
Sort **arrayDistance** in ascending order (preserve the indexation)
Display the top **n** images with colors closest to **C**

Background White
(R:255, G:255, B:255)

Image (60.png)