Python3 OpenCV3.3图像处理教程

– 贾志刚

直方图应用

- 直方图均衡化
- 直方图比较

Correlation (method = CV_COMP_CORREL)

$$d_{\text{correl}}(H_1,\ H_2)=\frac{\sum_i H_1'(i)\cdot H_2'(i)}{\sqrt{\sum_i H_1'^2(i)\cdot H_2'^2(i)}}$$

Chi-square (method = CV_COMP_CHISQR)

$$d_{\text{chi-square}}(H_1,\ H_2)=\sum_i \frac{(H_1(i)-H_2(i))^2}{H_1(i)+H_2(i)}$$

Intersection (method = CV_COMP_INTERSECT)

$$d_{\text{intersection}}(H_1,\ H_2)=\sum_i \min(H_1(i),\ H_2(i))$$

Bhattacharyya distance (method = CV_COMP_BHATTACHARYYA)

$$d_{\text{Bhattacharyya}}(H_1,\ H_2)=\sqrt{1-\sum_i \frac{\sqrt{H_1(i)\cdot H_2(i)}}{\sqrt{\sum_i H_1(i)\cdot\sum_i H_2(i)}}}$$

代码层面知识点

- 直方图均衡化公式
- 直方图比较

- 巴氏距离， 相关性，卡方


Thank You