

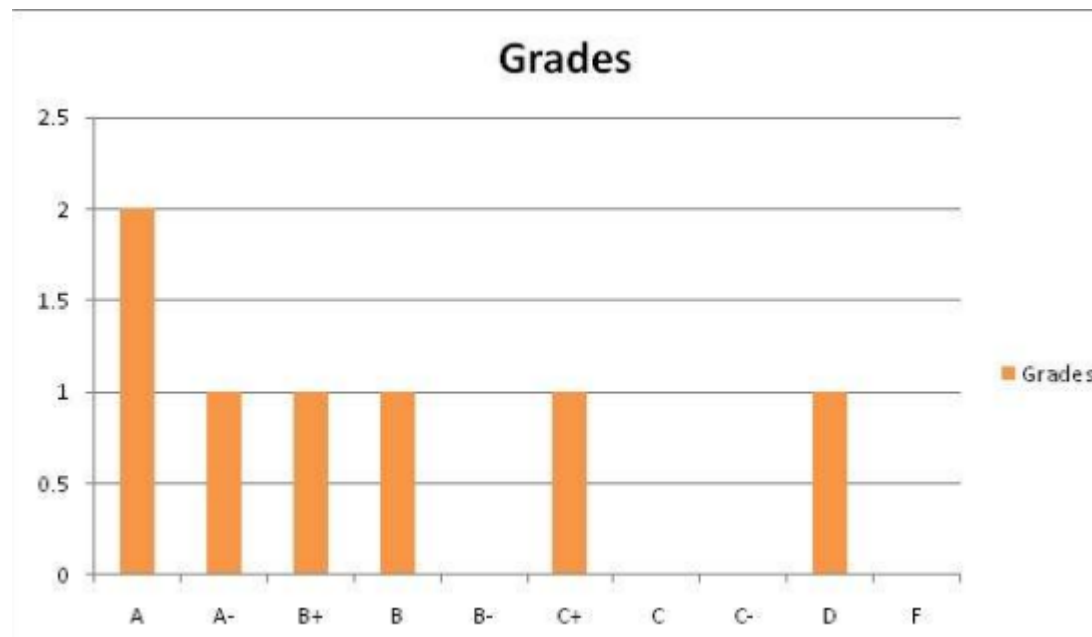
Python3 OpenCV3.3图像处理教程

– 贾志刚

图像直方图(histogram)

- ▶ 一维与多维
- ▶ 操作
- ▶ `pip install matplotlib`

Name	Grade
John	A
Jack	D
Carter	B
Tommy	A
Lisa	C+
Derek	A-
Tom	B+



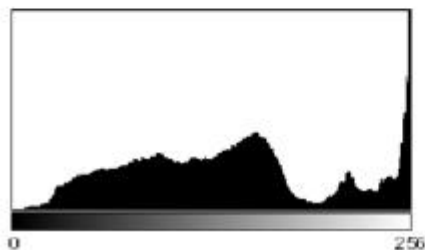


Image

$$\text{Bin的大小} = \frac{\text{图像中不同像素值的个数}}{\text{Bin的数目}}$$

对14位的图像，创建256个 bin直方图

$$\text{Bin size} = \frac{2^{14}}{256} = 64$$



Histogram

$$\begin{array}{llll} h(0) & \leftarrow & 0 \leq I(u, v) < & 64 \\ h(1) & \leftarrow & 64 \leq I(u, v) < & 128 \\ h(2) & \leftarrow & 128 \leq I(u, v) < & 192 \\ & & \vdots & \vdots \\ h(j) & \leftarrow & a_j \leq I(u, v) < & a_{j+1} \\ & & \vdots & \vdots \\ h(255) & \leftarrow & 16320 \leq I(u, v) < & 16384 \end{array}$$

代码层面知识点

- ▶ Python-Opencv直方图计算与显示



Thank You