R02944010 李柏緯

Computer Vision Homework 3

How to run it

After Install Python Image Library (Just use for I/O) :

```
python image.py lena.bmp
```

Histogram

Description

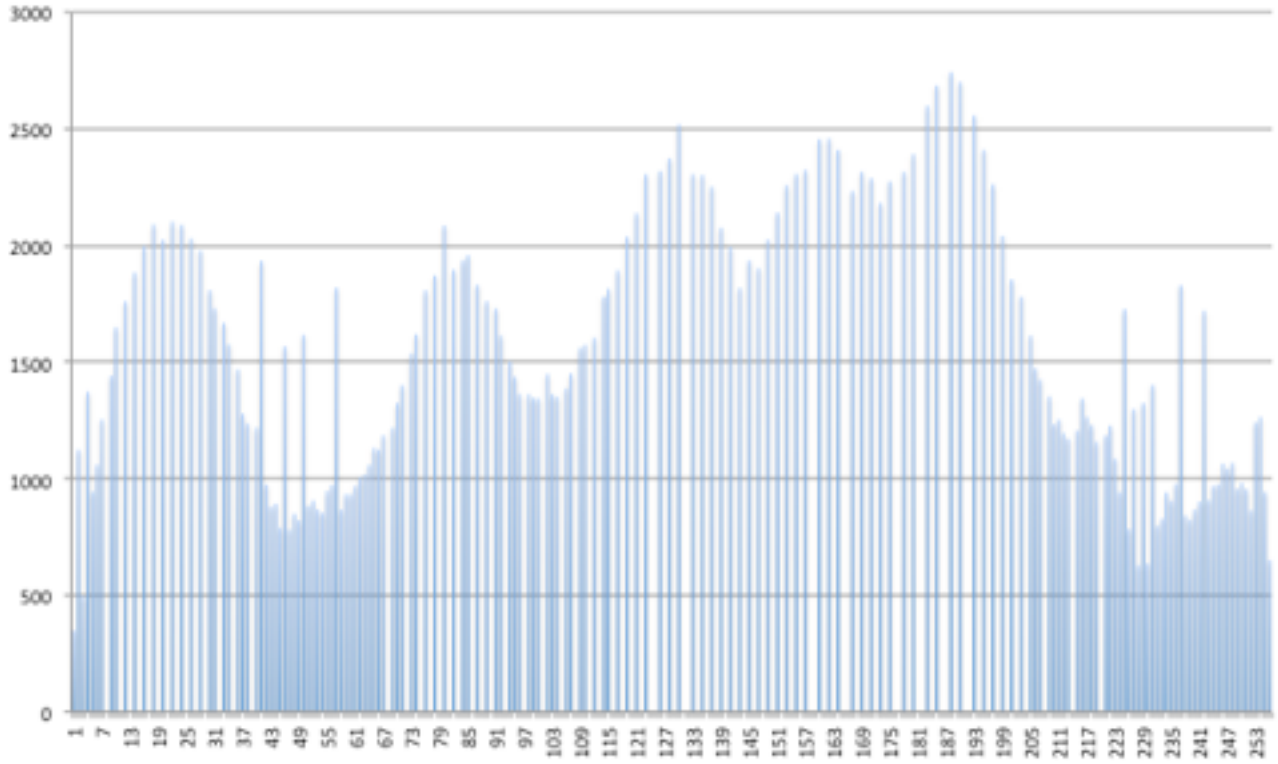
Count every pixel's value and generate accumulated pixels' values. Then, put these data into Histogram Equalization function to calculate new value of every pixel.
The function I used (form wikipedia):

$$h(v) = \text{round}\left(\frac{cdf(v) - cdf_{min}}{(M \times N) - cdf_{min}} \times (L-1)\right)$$

Principal code fragment

```
#histogram equalization function
def equalize( value, cdf, cdfMin, imageW, imageH ):
  return round( float( cdf[value] - cdfMin )/float( imageW * imageH - cdfMin ) * 255 )
```

Result


3000
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