



为梦想增值!

OpenCV3.1.0 特征提取与检测教程



讲师：贾志刚

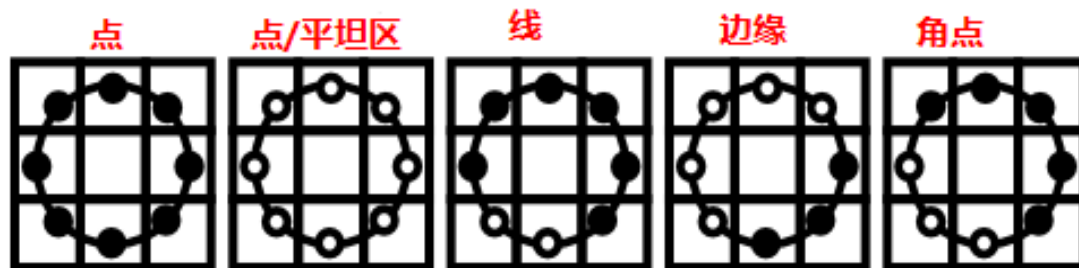
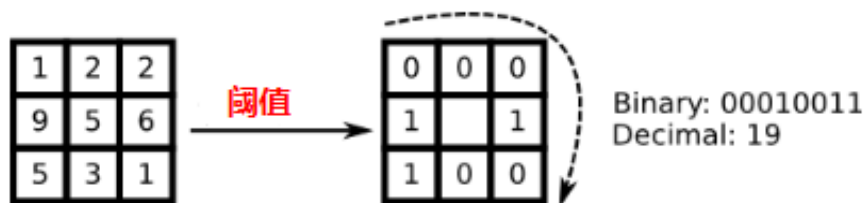
微博：流浪的鱼-GloomyFish



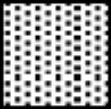
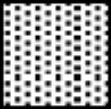
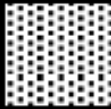
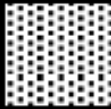
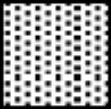
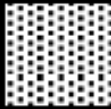
LBP(Local Binary Patterns)特征

- LBP特征介绍
- 代码演示

LBP特征介绍



LBP表达

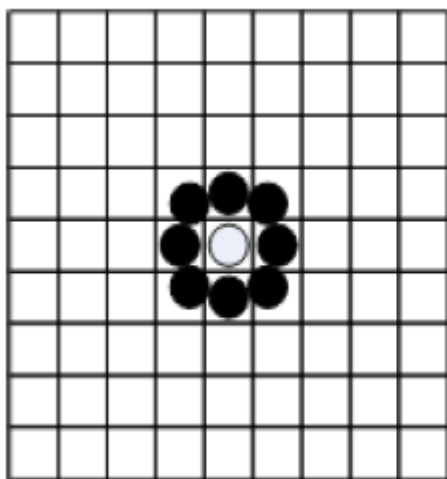
example	thresholded	weights																											
<table><tr><td>6</td><td>5</td><td>2</td></tr><tr><td>7</td><td>6</td><td>1</td></tr><tr><td>9</td><td>8</td><td>7</td></tr></table>	6	5	2	7	6	1	9	8	7	<table><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>1</td><td></td><td>0</td></tr><tr><td>1</td><td>1</td><td>1</td></tr></table>	1	0	0	1		0	1	1	1	<table><tr><td>1</td><td>2</td><td>4</td></tr><tr><td>128</td><td></td><td>8</td></tr><tr><td>64</td><td>32</td><td>16</td></tr></table>	1	2	4	128		8	64	32	16
6	5	2																											
7	6	1																											
9	8	7																											
1	0	0																											
1		0																											
1	1	1																											
1	2	4																											
128		8																											
64	32	16																											

Pattern = **11110001**

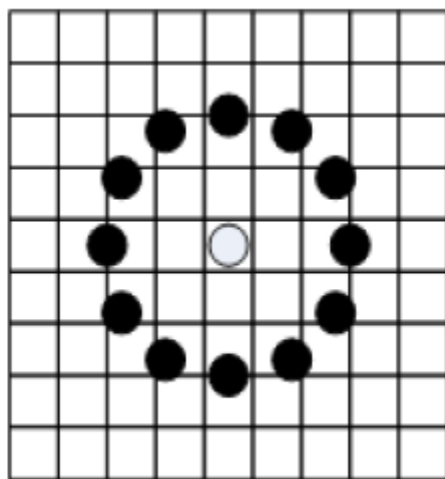
LBP = $1 + 16 + 32 + 64 + 128 =$ **241**

C = $(6+7+8+9+7)/5 - (5+2+1)/3 =$ **4.7**

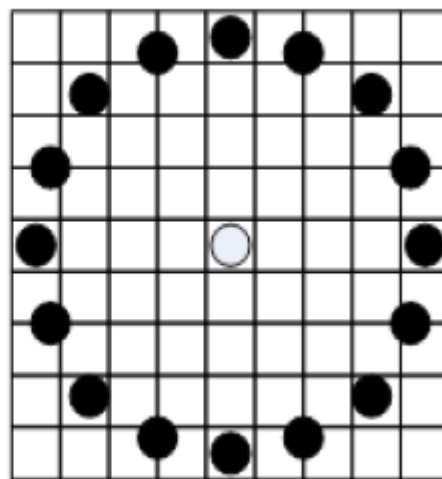
LBP扩展与多尺度表达



$P = 8, R = 1.0$

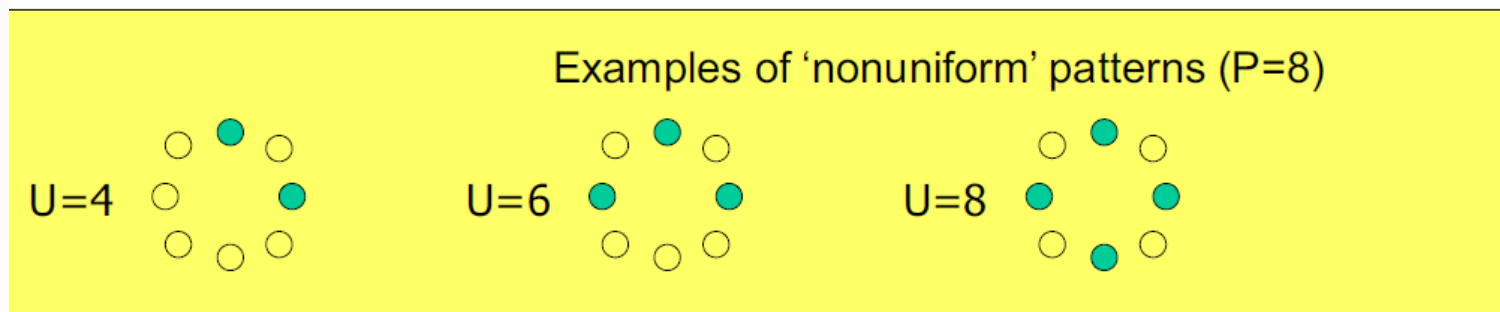
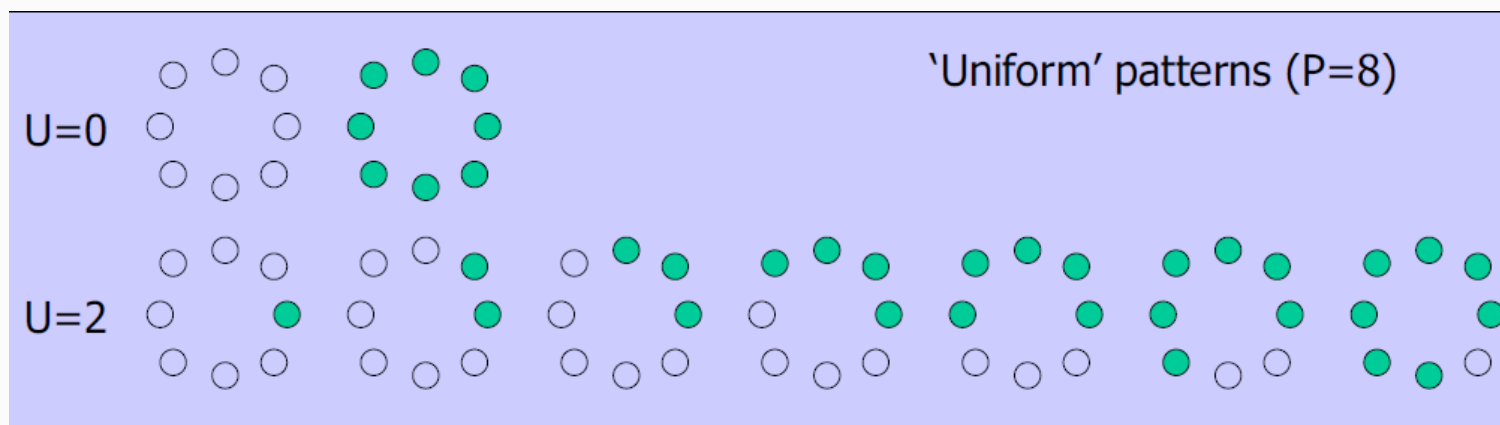


$P = 12, R = 2.5$



$P = 16, R = 4.0$

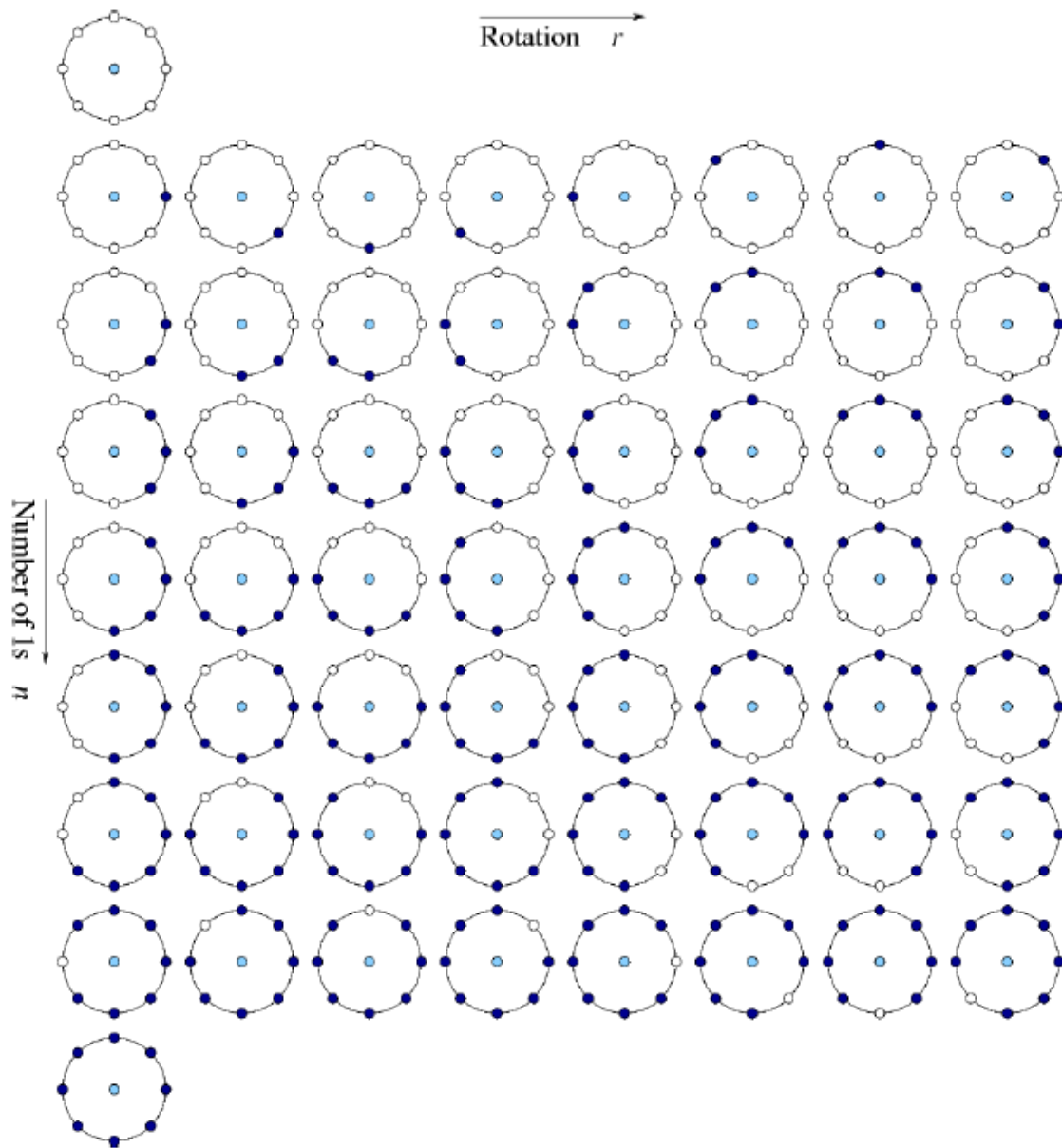
LBP统一模式



LBP统一模式

ULBP = 59

直方图表示 = 59 Bins



代码演示

- LBP特征演示



Thank You !

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