|  |  |  |
| --- | --- | --- |
| [i-1 ,j+1]  38 | [i ,j+1]  41 | [i+1 ,j+1]  42 |
| [i-1 ,j ]  38 | [i ,j ]  41 | [i+1 ,j ]  42 |
| [i-1 ,j-1]  39 | [i ,j-1]  41 | [i+1 ,j-1]  41 |

**以3×3大小的區塊來舉例LBP histogram的計算方式。**

[i-1 ,j+1] 🡺 38 – 41 = -3 二值化後為 0

[i ,j+1] 🡺 41 – 41 = 0 二值化後為 1

[i+1 ,j+1] 🡺 42 – 41 = 1 二值化後為 1

[i-1 ,j ] 🡺 38 – 41 = -3 二值化後為 0

…

……

|  |  |  |
| --- | --- | --- |
| [i-1 ,j+1]  0 | [i ,j+1]  1 | [i+1 ,j+1]  1 |
| [i-1 ,j ]  0 | [i ,j ] | [i+1 ,j ]  1 |
| [i-1 ,j-1]  0 | [i ,j-1]  1 | [i+1 ,j-1]  1 |

由左至右

|  |  |  |
| --- | --- | --- |
| [i-1 ,j+1]  2^0 | [i ,j+1]  2^1 | [i+1 ,j+1]  2^2 |
| [i-1 ,j ]  2^3 | [i ,j ] | [i+1 ,j ]  2^4 |
| [i-1 ,j-1]  2^5 | [i ,j-1]  2^6 | [i+1 ,j-1]  2^7 |

🡺 2 + 4 +8 + 64 +128 = 204 🡺 故該LBP 值為204

[參考資料] http://mermerism.blogspot.com/2014/04/wiki-httpblog.html