**HOG Process:**

**Steps to calculate HOG descriptors for face detection:**

A picture containing text, shoji

Description automatically generated

1. The picture is divided into 8 to 8 cell blocks, and for each 8 to 8 cell block, a histogram of gradients is measured.
2. A vector of 9 buckets (numbers) corresponding to angles from 0 to 180 degrees is basically a histogram (20-degree increments).
3. The values of these 64 cells (8X8) are binned into these 9 buckets and cumulatively inserted.