Xiaotong Pseudo-code for 4750

#Other

```
def collect(images, scale, filters, window, overlap, border):
    Initialize features and number of features
    FOR all image in images DO:
        Extract the features of image by calling F = extract(image, scale, filters, window,
overlap, borader)
        Update number of features and record the features F
        Check if feature size of F is consistant
    END FOR
    Combine all the features and adjust them according to the offset
    return the resulting features

def extract(image, scale, filters, window, overlap, border):
    Initialize the grid by calling grid = sampling_grid(X.shape, window, overlap, border,
scale)
    Set feature size to be window[0] * window[1] * len(filters) * scale * scale
    if no filter is defined:
        Use grid to extract features from image
    else:
        for each filter in the filters:
            Use grid to extract features from the filtered image
            Combine the features together
        end for
    return the resulting features

def sampling_grid(imgSize, window, overlap, border, scale):
    Resize the window, overlap and boarder according to the scale
    Create sampling grid for overlapping window
    Adjust sampling grid according to the offset size
    return the resulting grid
```