COMPGV15 CW2

Name: Min Li   ID: 17101062

Advanced Section

- **Compute better paths that somehow take both image-difference AND trajectory-similiarity into account.**

    To do this part, I create a new distance matrix basic on the previous distance matrix. The new distance matrix not only consider about the current frame but also previous two frames and one following frame. According to the paper which is given in Lab5, the new distance matrix is:

    $$D'_{ij} = \sum_{k=-m}^{m-1} w_k D_{i+k,j+k}.$$

    In my code, m is 2 and weights are 1/15, 4/15, 6/15 and 4/15. Then, the new matrix will be used to generate the sparse matrix.

- **Render slow motion interpolation based initially on the flow between real images in the collection.**

    To do this section, I use 'inter1q' function of Matlab to add points to the input path. The number of points can be controlled by the parameter 'Steps' in my code. The number of points added on one segment is Steps-1. Thus, more points will produce more steps to achieve the input path which causes slow motion.