

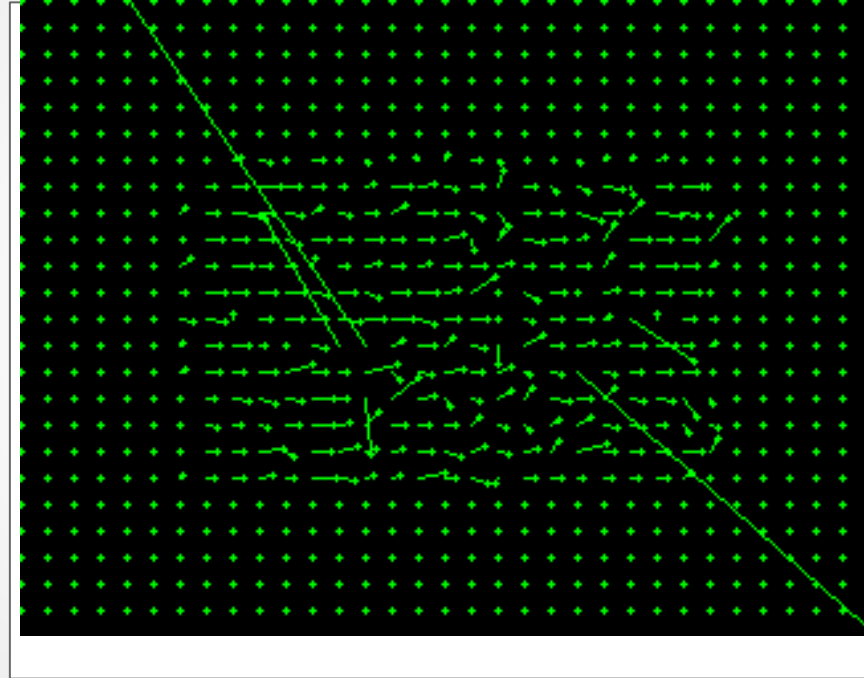
Computer Vision

Spring 2018

Problem Set #4

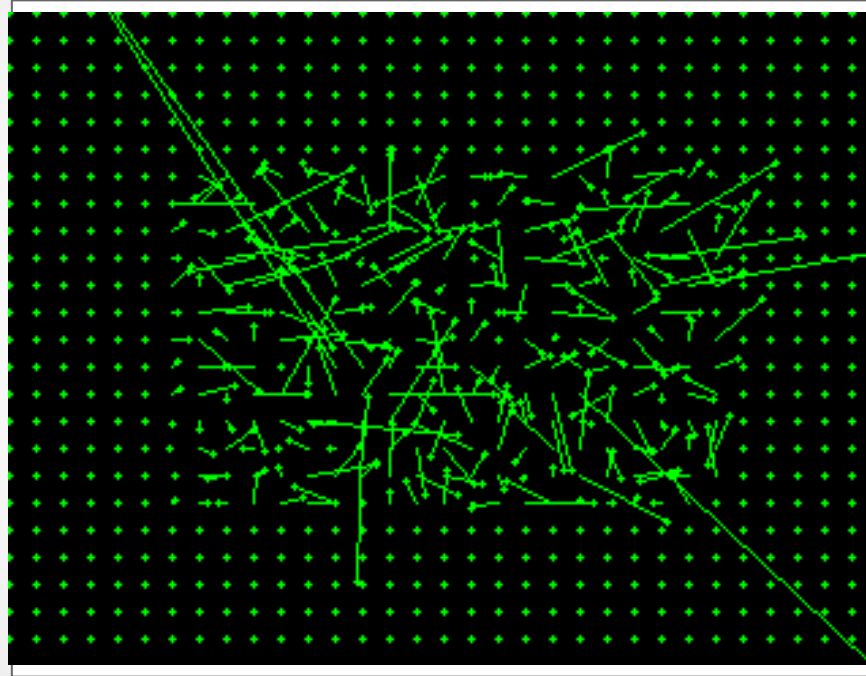
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1a: Base Shift0 and ShiftR2



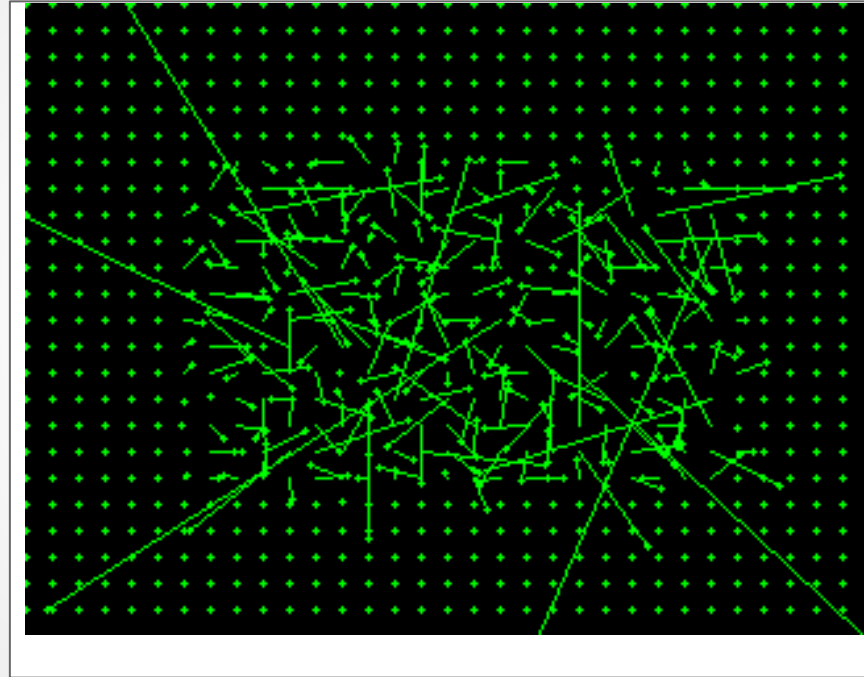
ps4-1-a-1.png

1a: Base Shift0 and ShiftR5U5



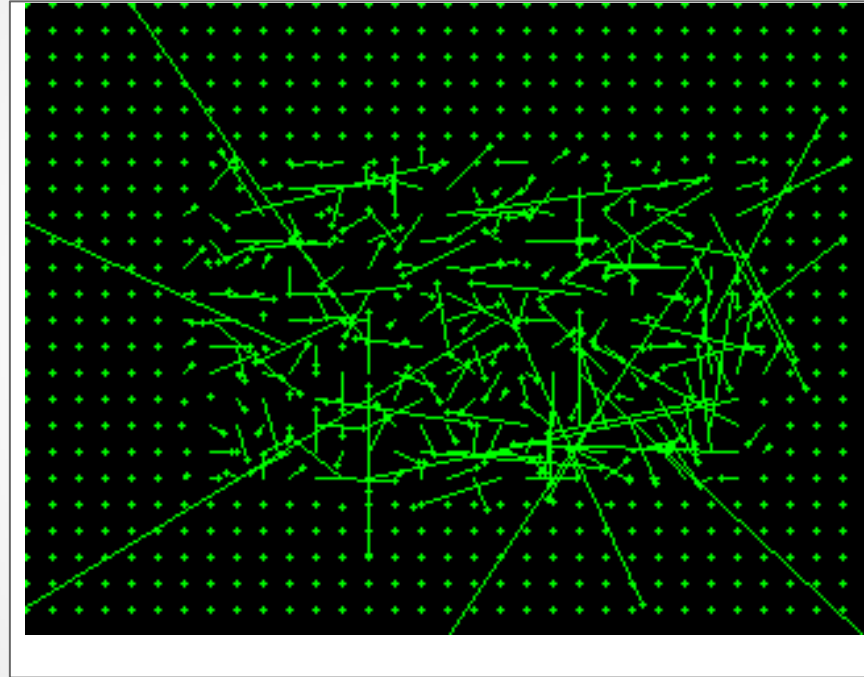
ps4-1-a-2.png

1b: Base Shift0 and ShiftR10



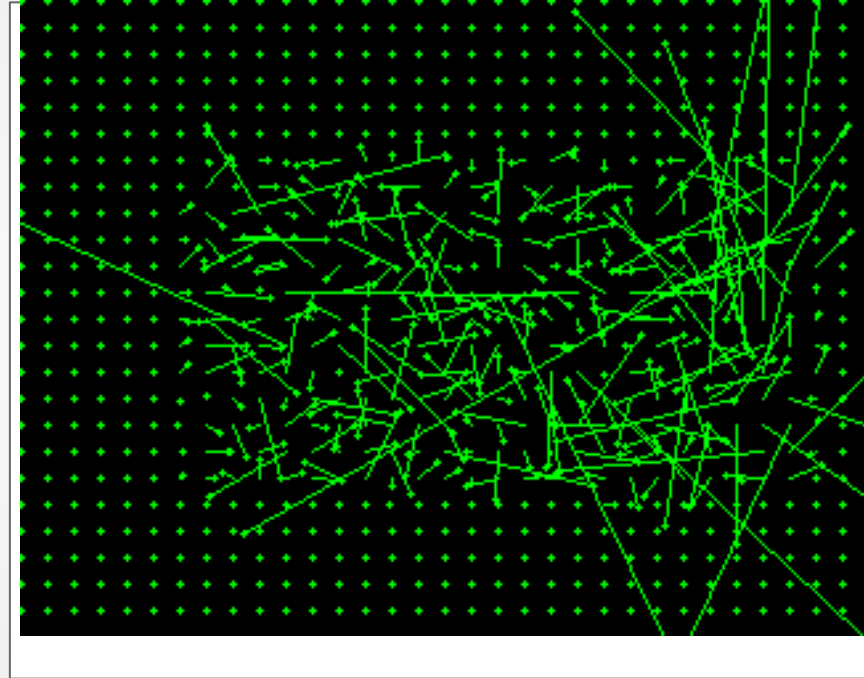
ps4-1-b-1.png

1b: Base Shift0 and ShiftR20



ps4-1-b-2.png

1b: Base Shift0 and ShiftR40

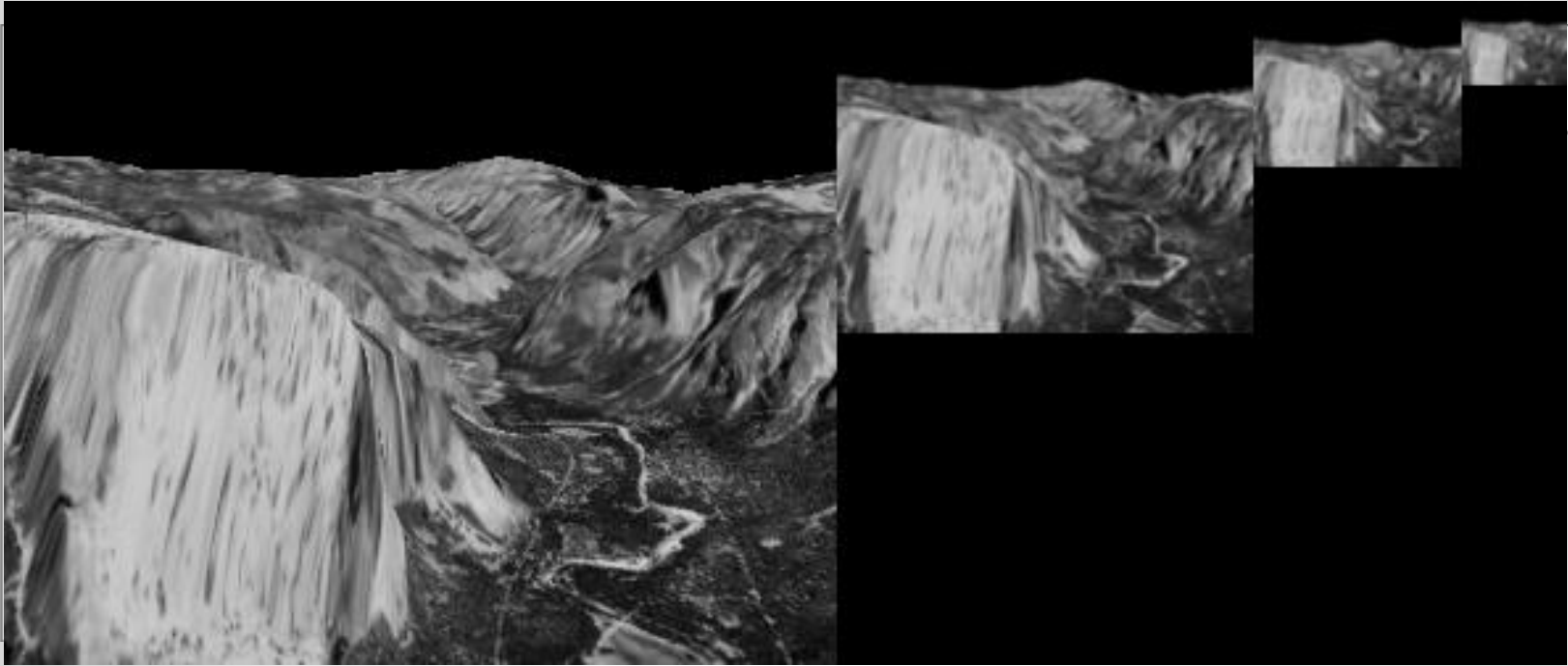


ps4-1-b-3.png

1b: Text Response

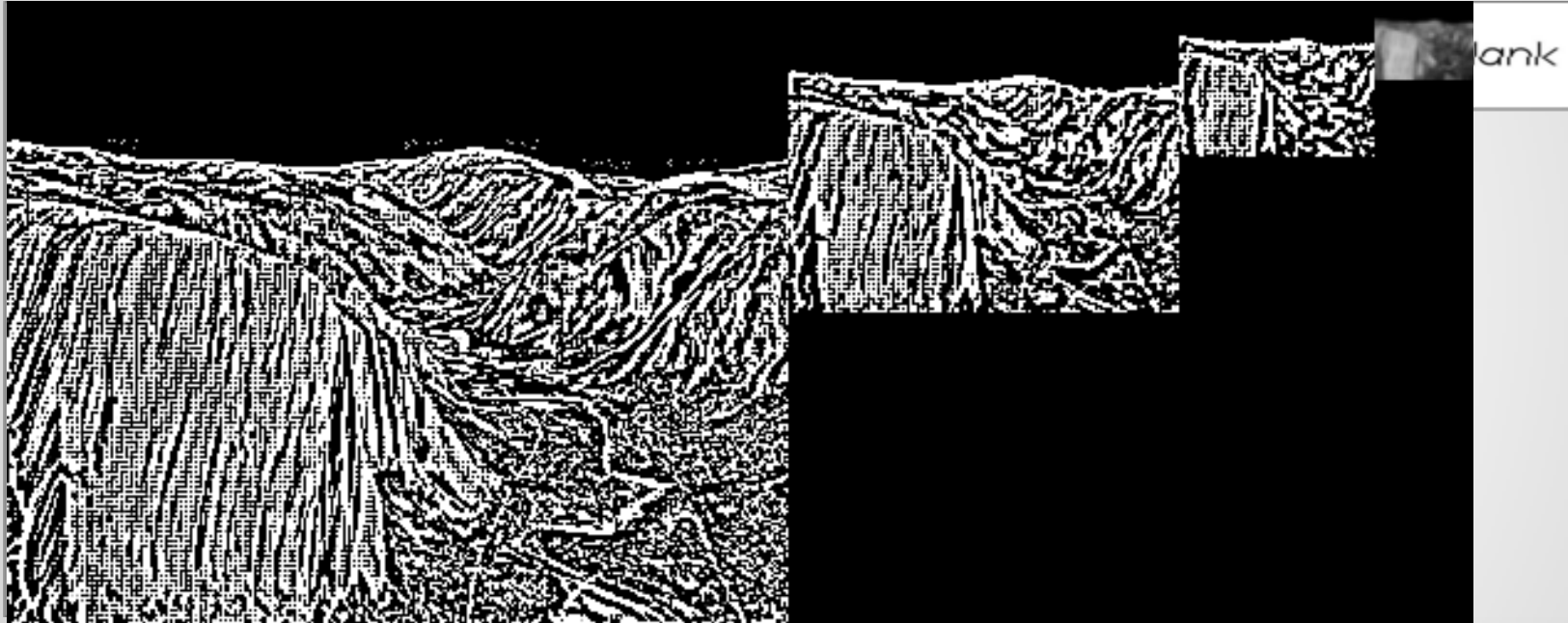
- LK still works but the parameters must be tuned. More specifically, the size of averaging kernel must be tuned in addition to modifying the filter type as well.

2a: Gaussian Pyramid



ps4-2-a-1.png

2b: Laplacian Pyramid



Laplacian Pyramid Image - **ps4-2-b-1.png**

3a: Difference images



ps4-3-a-1.png

3a: Difference images (cont.)



ps4-3-a-2.png

4a: Hierarchical LK



ps4-4-a-1.png

4a: Hierarchical LK (cont.)



ps4-4-a-2.png

4a: Hierarchical LK (cont.)



ps4-4-a-3.png

4b: Hierarchical LK (cont.)



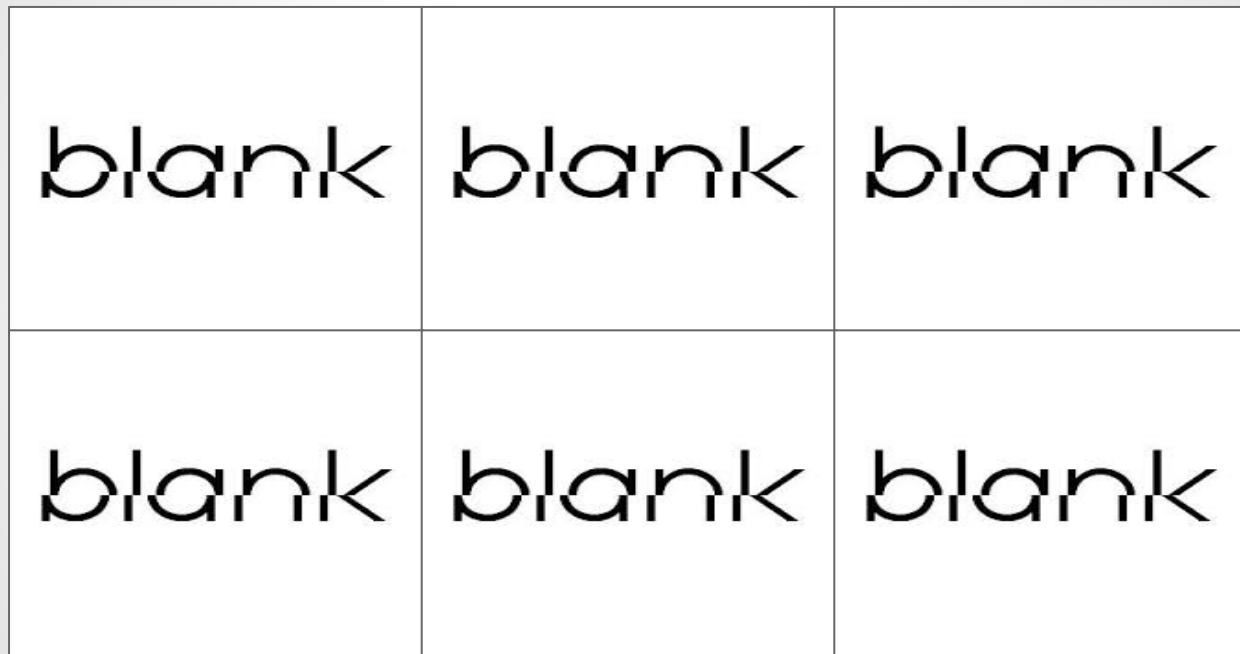
ps4-4-b-1.png

4b: Hierarchical LK (cont.)



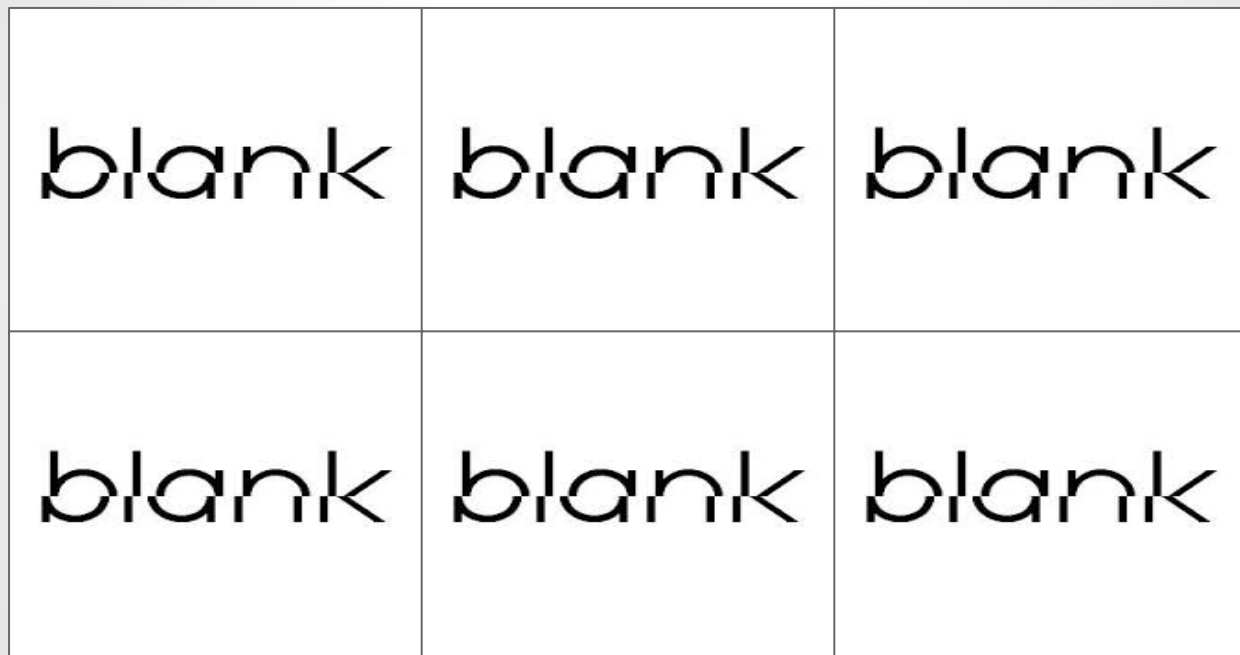
ps4-4-b-2.png

5a: Frame Interpolation



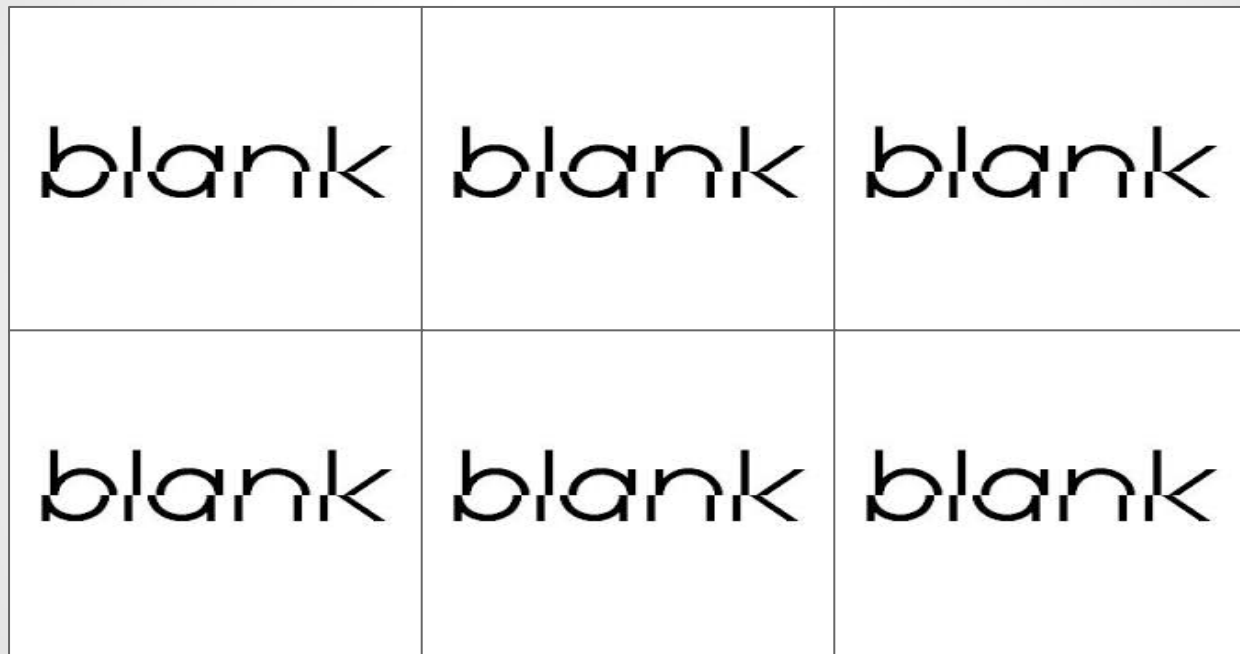
ps4-5-a-1.png

5b: Frame Interpolation



ps4-5-b-1.png

5b: Frame Interpolation



ps4-5-b-2.png

6: Challenge Problem



ps4-6-a-1.png

6: Challenge Problem (cont.)



ps4-6-a-2.png

6: Challenge Problem (cont.)

Video Link

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Please compress it using (or something similar):

<https://smallpdf.com/compress-pdf>

Verify that all images are still visible for grading.