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CS435 HW3

My bilinear_interp return value is off, which made my warp function result incorrect. So I set the result in my warp function to be 0, and that made my resulting images all black. I'm hoping I can get credits for implementing all the functions and partial credit for bilinear_interp. You can check my code to see all my other function implementations, they should be correct. When I run the following input command, I could calculate the intermediate frame and points.

Here are some demonstrations:

```
alan90011 — ssh -X ayt32@tux.cs.drexel.edu — 122x57
or would like to request a package,
please e-mail ihelp@drexel.edu
=====
Last login: Thu May 25 17:19:51 2017 from 192.168.224.63
ayt32@tux4 ~> cd CS435/hw3
ayt32@tux4 hw3> ls
data debug frames hw3.py
ayt32@tux4 hw3> vi hw3.py
ayt32@tux4 hw3> ./hw3.py data/cat_sm.png data/panda_sm.png data/panda_correspondants_sm.txt --debu
Computing intermediate frame 1...
intermediate_pts =
[[ 0. 0. ]
 [ 199. 0. ]
 [ 0. 199. ]
 [ 199. 199. ]
 [ 9.55555556 60.22222222]
 [ 30.77777778 173.11111111]
 [ 93.77777778 78.22222222]
 [ 102. 125.11111111]
 [ 132.77777778 93.11111111]
 [ 140.44444444 81.88888889]
 [ 144.44444444 104.11111111]]
intermediate_triangles =
[[ 1 6 0]
 [ 4 2 0]
 [ 6 4 0]
 [ 9 6 1]
 [ 7 4 6]
 [ 5 3 2]
 [ 5 7 3]
 [ 4 5 2]
 [ 7 5 4]
 [ 7 10 3]
 [ 3 10 1]
 [ 10 9 1]
 [ 8 7 6]
 [ 8 10 7]
 [ 9 8 6]
 [ 10 8 9]]
Computing intermediate frame 2...
intermediate_pts =
[[ 0. 0. ]
 [ 199. 0. ]
 [ 0. 199. ]
 [ 199. 199. ]
 [ 16.11111111 59.44444444]
 [ 40.55555556 171.22222222]
 [ 99.55555556 76.44444444]
 [ 108. 121.22222222]
 [ 137.55555556 90.22222222]
 [ 144.88888889 79.77777778]
 [ 148.88888889 101.22222222]]
intermediate_triangles =
[[ 1 6 0]
 [ 4 2 0]
 [ 6 4 0]
 [ 9 6 1]
```

```
Computing intermediate frame 0.11
```

```
intermediate_pts =
```

```
[ 0. 0. ]
[ 199. 0. ]
[ 0. 199. ]
[ 199. 199. ]
[ 55.44444444 54.77777778]
[ 99.22222222 159.88888889]
[ 134.22222222 65.77777778]
[ 144. 97.88888889]
[ 166.22222222 72.88888889]
[ 171.55555556 67.11111111]
[ 175.55555556 83.88888889]]
```

```
intermediate_triangles =
```

```
[ 4 2 0]
[ 1 4 0]
[ 3 10 1]
[ 7 10 3]
[ 5 3 2]
[ 5 7 3]
[ 4 5 2]
[ 5 4 7]
[ 6 4 1]
[ 4 6 7]
[ 8 10 7]
[ 6 8 7]
[10 9 1]
[ 8 9 10]
[ 9 6 1]
[ 9 8 6]]
```

```
h: 1: ffmpeg: not found
```

```
h: 1: ffmpeg: not found
```

```
yt32@tux4 hw3> vi hw3.py
```

```
yt32@tux4 hw3> ls
```

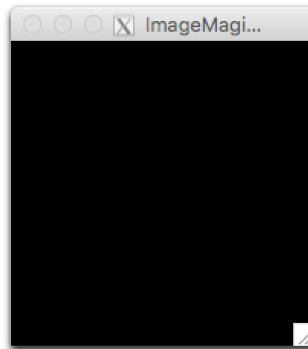
```
lata debug frames hw3.py
```

```
yt32@tux4 hw3> cd frames/
```

```
yt32@tux4 frames> ls
```

```
..png 2.png 3.png 4.png 5.png 6.png 7.png 8.png
```

```
yt32@tux4 frames> display 1.png
```



```
[ 134.2222222 65.77777778]
[ 144.         97.88888889]
[ 166.2222222 72.88888889]
[ 171.5555556 67.11111111]
[ 175.5555556 83.88888889]]
```

```
intermediate_triangles =
```

```
[[ 4 2 0]
 [ 1 4 0]
 [ 3 10 1]
 [ 7 10 3]
 [ 5 3 2]
 [ 5 7 3]
 [ 4 5 2]
 [ 5 4 7]
 [ 6 4 1]
 [ 4 6 7]
 [ 8 10 7]
 [ 6 8 7]
 [10 9 1]
 [ 8 9 10]
 [ 9 6 1]
 [ 9 8 6]]
```

```
sh: 1: ffmpeg: not found
```

```
sh: 1: ffmpeg: not found
```

```
ayt32@tux4 hw3> vi hw3.py
```

```
ayt32@tux4 hw3> ls
```

```
data debug frames hw3.py
```

```
ayt32@tux4 hw3> cd frames/
```

```
ayt32@tux4 frames> ls
```

```
1.png 2.png 3.png 4.png 5.png 6.png 7.png 8.png
```

```
ayt32@tux4 frames> display 1.png
```

```
ayt32@tux4 frames> cd ..
```

```
ayt32@tux4 hw3> ls
```

```
data debug frames hw3.py
```

```
ayt32@tux4 hw3> cd debug/
```

```
ayt32@tux4 debug> ls
```

```
result_0.111111.png result_0.555556.png warp1_0.111111.png warp1_0.555556.png warp2_0.111111.png warp2_0.555556.png
```

```
result_0.222222.png result_0.666667.png warp1_0.222222.png warp1_0.666667.png warp2_0.222222.png warp2_0.666667.png
```

```
result_0.333333.png result_0.777778.png warp1_0.333333.png warp1_0.777778.png warp2_0.333333.png warp2_0.777778.png
```

```
result_0.444444.png result_0.888889.png warp1_0.444444.png warp1_0.888889.png warp2_0.444444.png warp2_0.888889.png
```

```
ayt32@tux4 debug> display result_0.888889.png
```

