

# Homework

## Depth-image-based Rendering (DIBR)

Deadline: 6/19 23:59

1. Please modify the matlab code, **warping.m**. Change the left-direction warping to the right.

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%% Modify below code

```
for y = 1:height
    for x = width:-1:1
        warp_location = x + double(D(y,x)/scale);
        if(warp_location<=width)
            view(y,warp_location,:) = T(y,x,:);
            hole_map(y,warp_location) = 0;
        end
    end
end
end
```

2. Note: The example shows the left direction. You should change the annotation to compare the right-warping result.

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%% Quality Check

```
goal = imread('im0.ppm'); % for LEFT warping
goal = imread('im4.ppm'); % for RIGHT warping
```

```
Score_PSNR = psnr(after_fill, goal);
Score_SSIM = ssim(after_fill, goal);
```

---

%% Generate Red-Cyan 3D view

```
% for LEFT warping
RC_view(:,:,1)=after_fill(:,:,1);
RC_view(:,:,2)=T(:,:,2);
RC_view(:,:,3)=T(:,:,3);
% for RIGHT warping
% RC_view(:,:,1)=T(:,:,1);
% RC_view(:,:,2)=after_fill(:,:,2);
% RC_view(:,:,3)=after_fill(:,:,3);
```

3. If you modify below code to enhance image quality, you will get bonus score

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%% Hole Filling. If you modify below code to enhance image quality, you will get bonus score

```
after_fill=holefill(view,hole_map);
```